ATTACHMENT B

BEFORE THE ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re: U.S. Department of Energy and Triad National Security, L.L.C. Permit No. NM0028355	)	NPDES Appeal No. 22-01

PERMIT APPLICANTS' RESPONSE TO PETITION FOR REVIEW

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Exhibit No.	Document Name
A	Los Alamos National Laboratory EPA Permit Reapplication (March 2019)
B	Draft Permit No. NM0028355 (November 28, 2019)
C	Notice of Public Commentary Extending Period to March 31, 2020
D	Transcript of January 15, 2020 Public Hearing
E	Second Notice of Public Commentary Reopening Period to February 28, 2021
F	Triad Supplemental Comments, Information, and Response Regarding NGO Comments on Draft NPDES Permit No. NM0028355 for Los Alamos National Laboratory (February 25, 2021)
G	Concerned Citizens for Nuclear Safety, et al. Supplemental Comments on Proposed Renewal of NPDES Permit NM 0028355 (March 29, 2021)
H	Additional Comments Submitted During Public Commentary Period
I	NPDES Permit No. NM0028355 Fact Sheet (February 26, 2020)
J	DMR Summary for Permit NM0028355
K	DMR Outfall 051 (June 2019-January 2022)
L	Los Alamos National Laboratory Request for an Extension of Time to Complete SET Pipeline Water Tightness Testing, Radioactive Liquid Waste Treatment Facility (June 15, 2021)
M	EPA Region 6 Response to Comments (March 24, 2022)
N	Triad's Planned Change for the Radioactive Liquid Waste Treatment Facility Outfall 051 (February 25, 2021)

STATEMENT OF COMPLIANCE WITH WORD LIMITATIONS

This document complies with the word limitation of 40 C.F.R. 124.19(d)(3), because, excluding the parts of the document exempted by 40 C.F.R. 124.19(d)(3), this document contains less than 14,000 words.

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I. INTRODUCTION

Pursuant to 40 C.F.R. § 124.19(b)(3), Permit Applicants, the National Nuclear Security Administration of the U.S. Department of Energy ("DOE/NNSA") and Triad National Security, LLC ("Triad") (collectively, "Permittees"), submit this response to the petition, filed by Concerned Citizens for Nuclear Safety ("CCNS"), Honor Our Pueblo Existence ("HOPE") and Veterans for Peace, Chapter #63 ("VFP") (collectively, "Petitioners") for review of National Pollutant Discharge Elimination System ("NPDES") Permit No. NM0028355, issued pursuant to the Clean Water Act ("CWA" or "the Act") by the U.S. Environmental Protection Agency ("EPA") Region 6 on March 30, 2022 ("Petition"), authorizing discharges from multiple outfalls at the Los Alamos National Laboratory ("LANL" or the "Laboratory").

The Petition should be denied. EPA exercised considered judgment, and Petitioners have identified no finding of fact or conclusion of law that is clearly erroneous. Rather, Petitioners have selectively relied upon obsolete snippets from the records of prior permitting processes dating back two decades, while omitting key facts documented in the administrative record for *this permit*, including reports detailing actual ongoing discharges, that completely undermine their principal contentions. As Petitioners have in the past before the EPA Environmental Appeals Board ("the Board") and several federal courts, their Petition in this appeal advances mistaken interpretations of the CWA and the relationship between the CWA and other environmental statutes. Petitioners have contorted holdings of federal court decisions beyond recognition to advance an unsupported argument that EPA lacks authority to issue permits for discharges that will be made only when certain circumstances arise. Petitioners' underlying inference, that the Laboratory maintains CWA permitting as a sham to avoid other environmental regulatory requirements, is demonstrably false. Region 6 has committed no error or abuse of

discretion, and the Petition presents no agency exercise of discretion or important policy consideration warranting the Board's review.

II. PROCEDURAL AND FACTUAL BACKGROUND

The Board has previously reviewed and described the Laboratory's wastewater treatment and discharge facilities and has considered much of the NPDES permitting history pertaining to those facilities. *See In re Los Alamos Nat'l Sec., LLC*, 17 E.A.D. 586, 589-91 (EAB 2018) (order denying informal review of Region 6 denial of CCNS request to terminate LANL's NPDES permit) ("2018 Final Decision"). Shortly after the Board's 2018 Final Decision, the Permit Applicants filed an application to renew the NPDES permit.[1] Due to the complex nature of the 2019 Reapplication, Permittees requested that "all previous applications, modifications, maps, data, and pertinent correspondence submitted in reference to NPDES Permit No. NM0028355 transmitted to EPA" up to permit issuance be considered part of the reapplication.[2] Region 6 issued a draft permit on November 28, 2019[3], opened a public comment period from November 30, 2019 to January 28, 2020, extended that comment period to March 31, 2020,[4] held a public hearing on January 15, 2020,[5] and provided an additional public comment period from January 30, 2021 to February 28, 2021.[6] Triad, CCNS, and others provided supplemental comments during the re-opened comment period.[7]

[1] Ex. A, LANL March 2019 Permit Reapplication (hereinafter "2019 Reapplication").
[2] *Id.* at 1.
[3] Ex. B, November 28, 2019 Draft Permit No. NM0028355
[4] Ex. C, Notice of Public Commentary Extending Period to March 31, 2020
[5] Ex. D, Transcript of January 15, 2020 Public Hearing
[6] Ex. E, Notice of Public Commentary Reopening Period to February 28, 2021.
[7] *See generally* Ex. F, February 25, 2021 Triad Supplemental Comments; Ex. G, March 29, 2021 CCNS Supplemental Comments; and Ex. H, Additional Comments Received During Re-Opened Comment Period.

LANL has operated pursuant to NPDES Permit No. NM0028355 for more than 40 years under a variety of changing conditions. The Laboratory, which is currently operated by Triad on behalf of the DOE/NNSA, has had an approved NPDES Permit since 1978.[8] Prior to 1990, the Laboratory operated 141 permitted outfalls.[9] Through a significant outfall reduction effort, the Laboratory was able to move to 11 permitted outfalls by the 2012 renewed NPDES Permit No. NM0028355.[10] The Laboratory's 2012, 2015, and 2019 permit renewal applications each sought permit coverage for these remaining 11 outfalls.[11] These remaining 11 outfalls are located at seven administrative areas, referred to as "Technical Areas" or "TAs," that are spread out over approximately 36 square miles within the Laboratory's boundaries.[12]

Within this effective footprint, the Laboratory operates a large, complex organization comprised of multiple disciplines and programs that include nuclear weapons stockpile stewardship and extensive basic research in physics, chemistry, metallurgy, mathematics, computers, earth sciences, and electronics.[13] The 11 Laboratory outfalls are categorized in the 2019 Reapplication in Table 2,[14] (reproduced below) and are each discussed, in connection with their associated facilities, further below.

Outfall Category	**Number of Outfalls**	**Designation(s)**
Power Plant (001)	1	001
Sanitary Wastewater System Facility (13S)	1	**13S**
Radioactive Liquid Waste Treatment Facility (051)	1	**051**
		03A027
		03A048

[8] Ex. A at 1.
[9] *Id* at 3.
[10] *Id*.
[11] *Id*.
[12] *Id*.
[13] *Id*. at 2.
[14] *Id*. at 13.

Treated Cooling Water (03A)	6	**03A113**
		03A160
		03A181
		03A199
Non-Contact Cooling Water, Storm Water, and Roof Drain Water (04A)	1	04A022
High Explosives Wastewater Treatment Facility (05A)	1	**05A055**

Petitioners seek to exclude 6 of the 11 remaining outfalls from the Laboratory's NPDES permit. Petitioners' primary efforts are aimed at Outfall 051. CCNS has previously sought, unsuccessfully, to have Outfall 051 terminated from the Laboratory's NPDES permit. *C.f.* 2018 Final Decision, *appeal denied, Concerned Citizens for Nuclear Safety v. U.S. Env'l Prot. Agency, et. al.*, No. 18-9542 (10th Cir. Apr. 23, 2020), *reh'g en banc. denied,* (10th Cir. June 23, 2020), and *cert. denied,* No. 18-9542 (S. Ct. Mar. 1, 2021). Petitioners now also summarily seek to exclude Outfall 13S, Outfall 03A027, Outfall 3A113, Outfall 03A160, and Outfall 05A055. Petition ¶ 66; *id.* n.52.

A. Outfall 051

The Petition focuses primarily on the Radioactive Liquid Waste Treatment Facility ("RLWTF") at LANL. The RLWTF receives and treats radioactive liquid waste process wastewater, cooling water, and/or storm water from various generator facilities located throughout the Laboratory, and discharges effluent through an outfall designated as Outfall 051.[15] The Permittees estimated that Outfall 051 would discharge at a rate and frequency of 0.0159 million gallons per day (MGD), 4 days per week, twelve months per year, with an average volume of 15,936 gallons per day.[16]

[15] *Id.*; *see also* Ex. N, February 25, 2021 Triad Planned Change for RLWTF at Attachment 1 §2.2, Revised Outfall 051 Fact Sheet.
[16] *Id.* § 2.3.

At different times in the past, Outfall 051 has served primarily as the single discharge point for all RLWTF effluent. The RLWTF was designed and constructed over sixty years ago, and was specifically designed to discharge from the outfall.[17] In more recent years, Outfall 051 has been a complimentary discharge point used when the RLWTF's Mechanical Evaporator System ("MES") was unavailable due to malfunction or maintenance.[18] LANL has also developed Solar Evaporation Tanks (the "SET") to augment the RLWTF's treatment capacity, but construction flaws, permitting issues, and disuse and disrepair have prevented the SET from ever being used. While Petitioners correctly point out that the SET's preliminary permitting issues may now be resolved with issuance of a key state permit,[19] the remaining issues mean that any near-term use of the SET is unlikely.[20]

Most recently, due to operational need, the Laboratory has again envisioned a significant role for Outfall 051 whereby it will be utilized even when evaporation equipment is online.[21] Outfall 051 has served, and will continue to serve, as an integral component of the operational program of the RLWTF.[22] As described *infra* in Section IV.A.1, the record is unequivocal that the Laboratory continues to actively discharge from Outfall 051.

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[17] Ex. F, Attachment 1 at 18.
[18] *Id.* at 12.
[19] Petitioners in this matter have, contradictorily, challenged issuance of this final key state permit that authorizes the SET's usage asserting, among other things, that the State of New Mexico lacks legal authority to issue the permit, and yet in the instant Petition they assert that the state permit authorizing use of the SET will render use of Outfall 051 unnecessary. *Verified Petition for Review on Behalf of Concerned Citizens for Nuclear Safety and Honor our Pueblo Existence*, Petition for Review of the Decision of the New Mexico Environment Department Issuing Groundwater Discharge Permit No. DP-1132, WQCC No. 22-21 (Jun. 6, 2022).
[20] Ex. F, Attachment B ¶ 5, Aff. of Stuart A. McKernan in Support of Triad Supplemental Comments.
[21] *Id.*, Attachment 1 at 13.
[22] *Id.* at 18.

B. Outfall 13S

Outfall 13S has not discharged because, thankfully, to date there has been no equipment failure, but it is fully capable of discharging and will be used when circumstances warrant. Permittees described the need for and function of Outfall 13S in their Supplemental Comments as follows:

> Outfall 13S is associated with the LANL sanitary wastewater system (SWWS) treatment facility. **This facility and Outfall 13S are located at a lower elevation than all of the other outfalls at LANL, and [the 2019 Reapplication] clearly states that treated effluent from the SWWS can be discharged to Outfall 13S or pumped to the Power Plant Reuse Tank (located at a higher elevation).** Treated SWWS effluent that is pumped to the Power Plant Reuse Tank is either discharged to Outfall 001 or treated for reuse at the Sanitary Effluent Reclamation Facility (SERF). **Outfall 13S is routinely maintained, has an automatic flow meter, automatic sampler, and is fully capable of receiving SWWS treated effluent based upon demand, volume, and availability of equipment to pump, store, discharge, and/or treat using facilities and equipment located at an elevation that is much higher than SWWS.** The outfall provides operational flexibility for maintenance, repair, and replacement of equipment (i.e., pumps, SERF, Reuse Tank, Outfall 001) and serves as a critical backup should LANL be unable to pump to a higher elevation due to equipment failure or an increase in treated effluent volume.[23]

As these comments make clear, the Permittees intend and propose to discharge from Outfall 13S when pumping to facilities and equipment at higher elevations is not possible due to equipment failure or when there is a need to maintain, repair or replace such equipment. Even absent equipment maintenance or repair, there may be a need to utilize Outfall 13S if required by an increase in treated effluent volume.

C. Outfall 03A027

The Laboratory uses Outfall 03A027 to discharge cooling tower blowdown in support of the Strategic Computing Complex ("SCC"). The effluent is comprised of potable water and/or

[23] Ex. F, Attachment 1 at 19-20 (emphases added).

recycled Sanitary Wastewater System ("SWWS") effluent from the Sanitary Effluent Reclamation Facility ("SERF") that is treated by the cooling tower water treatment system. The blowdown discharged from 03A027 can be routed to either Outfall 03A027, Outfall 001, or the SWWS based on operational needs; the most recent discharge event from Outfall 03A027 was in September 2016.[24] In their Supplemental Comments, Permittees stated: "Outfall 03A027 is . . . capable of receiving SCC Cooling Tower blowdown discharges. In September 2016, the valving on the blowdown line was modified to allow discharge to Outfall 03A027, Outfall 001, the Reuse Tank at the Power Plant for recycle at SERF, or the SWWS treatment plant . . . based upon demand, volume, and outfall/equipment availability."[25] Thus, influent loading and the operational status of other equipment dictate the need to use Outfall 03A027.

D. Outfall 03A113

The Laboratory has utilized Outfall 03A113 in the past and will continue to do so in the future. Outfall 03A113 discharges treated cooling water.[26] Permittees' Supplemental Comments stated: "The TA-53-952 cooling tower discharges routinely to the outfall as shown in Fact Sheet Attachment D and the various Discharge Monitoring Reports [("DMRs")] . . . . The outfall discharged 529,234 gallons in 2017, 436,400 gallons in 2018, 198,530 gallons in 2019, and 154,390 gallons as of October 30, 2020. Cooling Tower TA-53-293 is in operational standby and is currently not discharging to the outfall, but the permit application proposes this as a future

[24] Ex. I, February 26, 2020 Fact Sheet at 5
[25] Ex. F, Attachment 1 at 20-21.
[26] Ex. I at 5-6.

discharge source to the outfall."[27] The DMR Summary in the administrative record for the Permit confirms these facts.[28]

E. Outfall 03A160

The Laboratory has utilized Outfall 03A160 in the past, most recently through April 2018, and will continue to do so in the future based on operational need. Outfall 03A160 discharges cooling tower blowdown. The Permitees' Supplemental Comments described the current situation as follows:

> The cooling tower blowdown discharged to Outfall 03A160 was routed to SWWS in May of 2018 to support the recycling of water through the SERF facility and to allow the NHMFL [National High Magnetic Field Laboratory] to construct a water treatment system and perform rehabilitation of the cooling system (i.e., replace heat exchangers, tank cleaning, tank integrity testing). The 2019 NPDES Permit Re-Application proposed discharges to that outfall based upon historical data and the use of the outfall as an operational backup. The proposed water treatment system mentioned in the permit and the cooling system rehabilitation were completed in the summer of 2020.[29]

F. Outfall 05A055

The Laboratory has utilized Outfall 05A055 in the past and will continue to do so in the future. This outfall is described in the Permitees' Supplemental Comments as follows:

> The 2019 NPDES Permit Re-Application clearly states "The treatment process is designed to circulate the wastewater through the process multiple times prior to storage in the post treatment tanks and discharge to either electric evaporators or to Outfall 05A055" (05A055 Fact Sheet Section 2.2.). **Outfall 05A055 is fully capable of receiving treated HEWTF [High Explosives Wastewater Treatment Facility] effluent based upon demand, volume, and availability of evaporation equipment. The outfall provides operational flexibility for maintenance, repair and replacement of equipment (i.e., evaporator), and serves as a critical backup should LANL be unable to evaporate effluent. There will be occasions when the volume of effluent or equipment availability**

[27] Ex. F, Attachment 1 at 20-21.
[28] Ex. J, DMR Summary at 62-63.
[29] Ex. F, Attachment 1 at 22.

> **(i.e., evaporator) will require discharge to Outfall 05A055. This is demonstrated in the discharge monitoring reports submitted to the EPA for previous discharges to the outfall.**[30]

As with several of the other outfalls, Outfall 05A055 will be used when necessary based upon operational need.

III. STANDARD OF REVIEW

EPA's consolidated permitting regulations provide detailed procedures for EPA's issuance or renewal of permits under NPDES and other permit programs. Those regulations require EPA to issue a draft permit, seek public comment, hold a public hearing where there is significant public interest in the draft permit, and respond to significant comments received when a final permit decision is issued. *See* 40 C.F.R. §§ 124.6-.12, .17. The regulations specify the procedures and grounds for an appeal of a permit decision at 40 C.F.R. § 124.19.

Petitioners bear the burden of demonstrating that review is warranted. *In re GSP Merrimack L.L.C.* 18 E.A.D. 524, 528 (EAB 2021). To satisfy its burden, Petitioners must "clearly set forth, with legal and factual support, [their] contentions for why the permit decision should be reviewed." *Id.* Because the Board's power is to be only sparingly exercised, "[t]he Board will ordinarily deny a petition for review . . . unless the underlying permit decision is based on a clearly erroneous finding of fact or conclusion of law or an exercise of discretion or important policy consideration that the Board, in its discretion, should review." *Id.*

A petition should be denied when the permit issuer has explained itself clearly and has support for its decision in the record. When evaluating a permit decision for clear error, the Board examines the administrative record to determine whether the permit issuer "exercised

[30] *Id.* at 23 (emphasis added).

'considered judgment'" in rendering its decision. *In re Gen. Elec.*, 18 E.A.D. 575, 608 (EAB 2022) (citations omitted). Clear error is a difficult standard for a petitioner to meet, as the record need only demonstrate that the permit issuer "duly considered the issues raised in the comments," *In re Gov't of D.C. Mun. Sep. Storm Sewer Sys.*, 10 E.A.D. 323, 342 (EAB 2002), and ultimately adopted an approach that "is rational and supportable," *In re Springfield Water & Sewer Comm'n*, 18 E.A.D. 430, 463 (EAB 2021) (citations omitted). Similarly, the permitting authority's exercise of discretion is reasonable if it is "cogently explained and supported in the record." *In re Sierra Pacific Indus.*, 16 E.A.D. 1, 15 (EAB 2013).

In the discussion below, the Permittees will demonstrate that the Board should deny the Petition. Petitioners' contentions are based on glaring factual errors, not factual support, and what Petitioners refer to as legal support amounts to evident misinterpretation of the statute, case law, and EPA guidance. Region 6 made no clearly erroneous finding of fact or conclusion of law, its decision is both rational and supportable, and therefore Region 6 cannot be seen as having abused its discretion. The Petition raises no important policy considerations warranting this Board's exercise of authority.

IV. ARGUMENT

A. Fatal Factual Flaws Undermine Petitioners' Principal Argument.

1. The Record is Clear That the Laboratory Has Been Actually Discharging from Outfall 051.

Petitioners have placed their legal argument—that Region 6 erred by issuing a permit for discharges from Outfall 051 because the Laboratory had no intention of using the outfall—on a foundation of sand. The sand has been shifting erratically for some time. On the one hand, Petitioners are insisting that LANL has no plan to use Outfall 051, while on the other hand

Petitioners demonstrated in their briefing to the Board in the prior appeal that the Laboratory had made clear that "Outfall 051 would be put to use." *See* CCNS Reply Br. at 8, *In re Los Alamos Nat'l Sec., LLC*, NPDES Appeal No. 17-05 (Nov. 7, 2017). Petitioners pointed out, for example, that eleven outfalls had been listed in the Laboratory's prior permit application "as 'potential no-flow outfall[s],'" but that "Outfall 051 is *not so listed.*" *Id.* (citation omitted). Petitioners also emphasized that "LANL's Fact sheet on Outfall 051 . . . states that Outfall 051 'discharges treated radioactive liquid wastewater'" and "is likely to be needed in the future." *Id.* at 8-9 (citation omitted). And CCNS asserted that "[o]ther passages describe Outfall 051 as an ongoing source of discharge." *Id.* at 9. While the Board has previously found no merit in legal arguments based on such assertions, *see In re Los Alamos Nat'l Sec., LLC*, 17 E.A.D. 586, 602, the fact remains that CCNS has *conceded* that the Laboratory had articulated specific plans to utilize Outfall 051 when necessary. Which is it? Is the Laboratory using, or planning to use, Outfall 051 or is it not? CCNS does not reveal the answer, because it omits the relevant facts from the current Petition.

Instead of confronting dispositive evidence detailing the Laboratory's *actual, ongoing use* of Outfall 051 to discharge effluent from the RLWTF, discussed below, Petitioners cling to portions of obsolete documents from past proceedings to perpetuate their myth that Outfall 051 remains a seldom-used backup option. Petitioners point to statements from 1998, 1999, 2000 and 2008 describing a long-abandoned prior goal of achieving zero liquid discharge. Petition ¶¶ 10-21.[31] All of this ancient history is intended to support Petitioners' erroneous factual conclusion

[31] We note that, despite the aspirational statements from over twenty years ago upon which Petitioners heavily rely, and despite remarkable outfall reductions achieved at the Laboratory, the RLWTF has never been, and is not now, a zero liquid discharge facility. We further note that such documents were authored by prior Laboratory operators, not the Laboratory's current operator.

that the RLWTF "has not discharged any liquid since November 2010, except for certain releases in June 2019, March and August 2020 . . . ." *Id.* ¶¶ 10, 35-37.

The record proves otherwise. Region 6 included in the administrative record a summary of DMRs for the five years preceding permit issuance. These records have been available to the public for some time. The Laboratory's DMRs document that discharges were made from Outfall 051 in April, May, June, July, August, September and November of 2021, in addition to the discharges noted by the Petitioners in June 2019, March 2020 and August 2020.[32] Flows ranged from about 10,000 gallons per day ("GPD") in August 2020 to about 980,000 GPD in August 2021.[33] Moreover, these DMRs capture data on discharges from Outfall 051 on a total of 19 days between June 18, 2019 and November 29, 2021, each of which was a batch discharge representing the accumulation of treated liquid wastewater on even more days of operations at the RLWTF.[34]

Petitioners, perhaps not fully aware, make no mention of these facts demonstrating that Outfall 051 actually is discharging at significant flow rates and has been doing so for over a year. However, the Petition fails to note that the Laboratory made clear in its February 25, 2021 supplemental comments that "discharges from the outfall are expected to be more routine and frequent in the future" and that "there will be occasions on which influent to the RLWTF will be significant enough that LANL will choose to use both the mechanical evaporator and Outfall 051

[32] Ex. J at 45.
[33] *Id.*
[34] Ex. K, June 2019-January 2022 DMR Outfall 051; *see also NPDES Outfall 051051 Flow Rates*, Intellus New Mexico Database, https://www.intellusnm.com/reporting/quick-search/quick-search.cfm (selecting applicable data provider, data type, and analytical parameters).

simultaneously."[35] And Petitioners conveniently overlook the affidavit of Stuart A. McKernan, LANL's Facility Operations Director in charge of the RLWTF, who stated for the record:

> RLWTF is a mission-critical facility that treats low-level and transuranic liquid wastewater from processes at generator facilities throughout the Laboratory. The Laboratory is authorized under the NPDES Permit to discharge wastewater from the facility through Outfall 051, the Mechanical Evaporator System (MES), and/or the Solar Evaporation Tanks (SET). All three discharge options are available for use as needed to support RLWTF operations. Outfall 051 is an integral component of RLWTF, and is required to maintain operational flexibility and readiness to meet the Laboratory's mission demands. **Outfall 051 is not used only as a back-up, but also has been and will be used routinely in conjunction with the MES to support the Laboratory's operational priorities, such as when influent to the RLWTF makes such use advisable,** and to confirm operability. In addition, as in the past, Outfall 051 will remain available in the event the MES is taken out of service for repair, replacement, or maintenance. Outfall 051 is especially critical due to the fact that the SET is not currently available for use.[36]

Nor does it matter that the New Mexico Environment Department ("NMED") issued a permit on May 5, 2022, authorizing the use of the SET. Contrary to Petitioners' assertion, that state-level permitting action does not make it "unlikely that there should be any discharge through Outfall 051," Petition ¶ 42, because the SET will play no role in the operation of the RLWTF any time soon. On June 15, 2021, LANL requested from NMED, and was granted, an extension of the deadline to complete required actions on the SET because, among other things, the primary liner must be replaced.[37,38] The new deadline is January 15, 2023, but given the significant work needed on the SET, and because the Laboratory's capital project budget cycles

[35] Ex. F, Attachment 1 at 18-19.
[36] *Id.*, Attachment B ¶ 5 (emphasis added).
[37] Ex. L, June 15, 2021 Letter Requesting Extension of Time to Complete SET Pipeline Water Tightness Testing, Radioactive Liquid Waste Treatment Facility.
[38] The Permitees respectfully request that the Board take official notice of this and other public documents cited in this Response. *See, e.g. In re Los Alamos Nat'l Lab.*, 17 E.A.D. 586, 594 n.6 (EAB 2018) (citing *In re Donald Cutler*, 11 E.A.D. 622, 650-51 (EAB 2004)) (explaining that information in the public domain is subject to official notice by the Board).

on the federal fiscal year, the timeline for the SET is likely well beyond this time. Therefore, the SET cannot possibly have near-term effect on LANL's need to utilize Outfall 051. In any case, the record is clear that the MES and SET are designed to work with, not in lieu of, the Laboratory's use of Outfall 051.[39]

It also is of no moment that Region 6 responded to CCNS's comments by explaining that it authorized discharges from Outfall 051 because the Laboratory had requested that authorization, or that Region 6 mentioned only some of the discharges from Outfall 051 that occurred during the past five years.[40] The record before the Agency included all of the ongoing discharges. Region 6 knew full well that the Laboratory has in fact utilized the outfall and had made clear its intention to continue to utilize the outfall into the future.[41]

These facts render irrelevant Petitioners' laborious legal argument that Region 6 lacked authority to issue the permit authorizing "potential" discharges from Outfall 051, as well as their contention that the Region erred by "not giving effect" to the Resource Conservation and Recovery Act ("RCRA") to regulate the RLWTF as a hazardous waste facility. Petitioners concede that the CWA confers authority to issue NPDES permits for actual discharges, and it concedes that an NPDES permit triggers the wastewater treatment unit ("WWTU") exemption from RCRA's permitting requirements and standards. Petition ¶ 55. Outfall 051 has actually been discharging for some time and will continue to do so. Since the NPDES permit was lawfully issued for an actual discharge, the WWTU exemption clearly applies, even under Petitioners' narrow view of the law, which the Laboratory disputes in the discussion below.

[39] Ex. F, Attachment B ¶ 5.
[40] Ex. M at 11, March 24, 2022 EPA Region 6 Response to Comments
[41] Ex. F, Attachment 1 at 18-24.

Petitioners have come nowhere near carrying their burden of demonstrating clear error or an abuse of discretion by Region 6. The unremarkable fact that Region 6 reissued a long-standing NPDES permit authorizing continuation of ongoing discharges from Outfall 051 hardly qualifies as an exercise of discretion or important policy consideration warranting the Board's review.

2. Other Outfalls.

Petitioners also assert that no discharges have occurred from Outfalls 13S, 03A027, 03A113, 03A160 and 05A055. *Id.* ¶¶ 41-43. With respect to Outfalls 03A113 and 03A160, that claim is also not true. The DMR summaries in the record for these two outfalls evidence that significant discharges have occurred during the past five years.[42] There is no question, even under Petitioners' flawed legal theories, that Region 6 had authority to issue the permit authorizing these actual discharges from Outfall 03A113 and 03A160.

As to the other outfalls, Permittees plainly have proposed to use them for discharges when circumstances require it. Outfall 13S will be used when the Laboratory experiences equipment failure or when there is a need to maintain, repair or replace such equipment, and it will be used if required by an increase in treated effluent volume. While Outfalls 03A027 and 05A055 were not used in the most recent permit cycle, both outfalls have been used by the Laboratory and will be used when operational needs require (i.e., when the volume of influent demand is sufficient and/or when other equipment is unavailable). As we demonstrate in the discussion below, Region 6 properly exercised its authority and discretion under the CWA in permitting these outfalls.

[42] Ex. J. at 62-63, 80.

It should be noted that the lack of continuous discharges from Outfalls 13S, 03A027 and 03A160 is attributable in large measure to the Laboratory's efforts to recycle and reuse treated effluent, as discussed above. These outfalls are necessary to sustain the Laboratory's important operations when the utilization of available capacity for water recycling and reuse has been maximized. Requiring that NPDES permit coverage be available only for continuous or frequent discharges would necessitate changes to this practice that would run counter to sound water conservation policy and undercut the CWA's objective of minimizing effluent discharges.

B. The Petition is Based on Incorrect Interpretations of the CWA, RCRA, and the Relationship Between the Two Statutes.

Petitioners base the current Petition on incorrect interpretations of the CWA, RCRA, and the relationship between the two statutes. First, Petitioners erroneously assert that EPA lacks authority under the CWA to issue a discharge permit for outfalls that have not been utilized recently and/or continuously in the past and have not been described as meeting immediate future needs. Second, Petitioners mistakenly contend that the WWTU exemption under RCRA applies only when a wastewater treatment unit has been issued a discharge permit under the CWA. The discussion below addresses each point in turn.

To be clear, the issue Petitioners raise concerning Region 6's statutory authority is not relevant to Outfalls 051, 03A113 and 03A160, as the record demonstrates that these outfalls are utilized to discharge treated effluent on an ongoing basis. Even the Petitioners concede that permitting such actively discharging outfalls is proper.

In the instant Reapplication, Permittees also proposed to utilize Outfalls 13S, 03A027 and 05A055 to discharge effluent in the future when circumstances require their use, as described

above. The argument below demonstrates that Region 6's inclusion of those three outfalls in the permit was proper.

1. Region 6 Has Clear Authority Under the CWA to Include All Requested Outfalls in the Permit.

Region 6's authority to issue this permit is sound and well supported. The text, structure and purposes of the CWA and EPA regulations support Region 6's authority to issue the permit for proposed discharges that will occur only in certain circumstances. The case law does not undermine that authority. Moreover, the CWA's extensive storm water permitting program and its effluent guidelines program for unplanned, episodic pollutant discharges demonstrate by analogy that Congress did not intend to limit EPA's authority to issuing NPDES permits only for ongoing or imminent discharges. And Region 6's long standing practice of industrial and municipal wastewater permitting for contingent discharges confirms that there is nothing unusual about the permit at issue here.

2. Statutory and Regulatory Provisions Provide Clear Authority for Permitting Presently Non-Discharging Outfalls, Including Outfalls 13S, 03A027 and 05A055.

The CWA provides that EPA "may . . . issue a permit for the discharge of any pollutant . . . upon condition that such discharge will meet" various statutory limitations. 33 U.S.C. § 1342(a). This language only makes sense if it is viewed as forward looking – *i.e.*, the issuance of a permit for future discharges that "will" comply with the statutory requirements. It would be pointless for Congress to authorize EPA to grant permission for past discharges, and it would be impossible for the Agency to ensure that such past discharges "will meet" effluent limitations. Clearly, Congress envisioned that EPA would first grant permission, conditioned as directed in the statute, and that thereafter such discharges would be legally sanctioned.

EPA's implementing regulations provide that a permit may be issued to "[a]ny person who discharges *or proposes* to discharge pollutants." 40 C.F.R. § 122.21 (a)(1) (emphasis added). Petitioners appear to accept and endorse this formulation of EPA's statutory authority under § 1342(a). Petition ¶ 55. Because, as explained above, Permittees have repeatedly discharged and/or proposed to discharge from each of the Laboratory's outfalls, Petitioners' acceptance of the regulatory language leaves no dispute for the Board to address.

Petitioners nonetheless appear to contend that a permit applicant must propose to make a very *definite, unconditional, and imminent* future discharge in order that EPA would have such authority to issue a permit. Petitioners maintain that the CWA contains no "authority to issue a permit for a discharge that 'could occur,' nor for a 'potential' or a 'capability' to discharge." *Id.* ¶ 51. Nothing in the statute or EPA's longstanding practice supports this hair splitting.

As noted, Petitioners' contention boils down to an argument that the applicant must show it has an unconditional intention to discharge in the near future, regardless of circumstances, or the applicant must have demonstrated that circumstances make a discharge highly likely, before EPA would have authority to grant the application. The statute does not mention any such limit on EPA's authority, and for good reason.

Permit applicants who know they must discharge in unusual or rare circumstances are in fact meeting their responsibility to avoid unpermitted, and unlawful, discharges by ensuring they have permit authorization to cover such possibilities. They do so by requesting permit authorization, as the Permittees have done here. It would be bizarre, to say the least, if Congress had imposed on EPA an obligation to assess the likelihood that circumstances would arise necessitating a discharge, and to issue a permit only when satisfied that its crystal ball has

deemed the probabilities to be sufficiently large. In the context of such a requirement, EPA could hardly justify enforcing the statute's prohibition on unpermitted discharges if it had previously deemed such discharges too remote to justify issuing a permit. The statutory scheme makes no provision for such a fanciful scenario.

It would seem equally bizarre to suppose that Congress did not authorize EPA to provide permit coverage for redundant systems or equipment designed and used to ensure that industrial wastewater can be handled responsibly in all circumstances. Prudent owners and operators of point sources should be *expected* to design and manage their operations in this fashion, and denying EPA the authority to approve these actions would discourage such responsible behavior, jeopardizing the fundamental goals of the Act.

3. The Case Law Does Not Undermine EPA's Statutory Authority.

Petitioners reach their remarkable position by misapplying the holdings in two decisions from the Second and Fifth Circuit Courts of Appeals. *Id.* ¶¶ 52-54. Those decisions have nothing to do with whether EPA has authority to issue a requested permit under the CWA.

In the first decision, industry petitioners challenged a provision in EPA's programmatic regulation governing Concentrated Animal Feeding Operations (CAFOs). The provision had required CAFO owners and operators to apply for a CWA discharge permit if there was a "potential to discharge" from their operations. *Waterkeeper All., Inc. v. U.S. Env'l Prot. Agency*, 399 F.3d 486 (2d Cir. 2005). EPA had termed this requirement a "duty to apply," and said the duty was based on a presumption that every CAFO has the potential to discharge. *Id.* at 505. Thus, the "duty to apply" was an EPA command requiring that all CAFOs *must* submit themselves to regulation that would control and constrain the operation of their businesses. The

"duty to apply" *was itself an enforceable requirement*, punishable by civil and criminal penalties independent of whether there had been any discharge of pollutants from the CAFOs.

The Second Circuit concluded that the CWA conferred no authority on EPA to *compel the filing of a permit application* in the absence of an actual discharge. *Id*. Because a mere potential to discharge lacks all of the elements triggering the statute's prohibition against unpermitted discharges (actual addition of pollutants to navigable waters from a point source), the court said there was "no statutory obligation of point sources to seek or obtain a [CWA] permit in the first instance." *Id.* Thus, there could be "no duty to apply" based on a mere potential to discharge. But the court *never addressed whether EPA could issue a permit in response to a voluntary permit application.* The court could not have decided that question because the challenged regulation did not address it and no petitioner had raised it.

Despite this context and with no regard for the limits of the case or controversy before the court, Petitioners focus on a single sentence in the Second Circuit's decision, calling it a "categorical ruling"; the court said, "the Clean Water Act gives EPA jurisdiction to regulate and control only actual discharges—not potential discharges, and certainly not point sources themselves." Petition ¶ 52 (quoting *Waterkeeper All.*, 399 F.3d at 505). Petitioners spotlight the court's language – "jurisdiction to regulate and control" – in support of their theory that EPA's permit issuance authority depends on the high likelihood of a discharge. *Id*. Petitioners' reliance on this passage misuses the court's language and should be rejected as unpersuasive for several reasons.

First, because no party had brought a challenge to EPA's authority to issue permits (as opposed to its authority to compel submission of permit applications), the court had no occasion

to address it, and interpreting the court's language to cover EPA's permit-issuance authority, as Petitioners endeavor to do, renders the court's passage mere dictum. *Monod v. Futura, Inc.*, 415 F.2d 1170, 1173 (10th Cir. 1969) ("Because this issue was not properly before that court the conclusion is mere dicta and must be read as such."). *See also Tokoph v. United States*, 774 F.3d 1300, 1303 (10th Cir. 2014) ("[D]icta are statements and comments in an opinion concerning some rule of law or legal proposition not necessarily involved nor essential to determination of the case in hand.") (quoting *United States v. Villarreal-Ortiz*, 553 F.3d 1326, 1328 n.3 (10th Cir. 2009)). Reading a court's language so as to reduce it to dicta can hardly be seen as a plausible interpretation of the decision.

Second, the context of the case leads to a different interpretation of the court's language – one that supports the common-sense notion that EPA has jurisdiction to *require submission to* "regulat[ion] and control" of private activity only when that activity would otherwise be unlawful (*e.g.*, the prohibited discharge of a pollutant without a permit). The court was dealing with an EPA effort to *compel* CAFOs' submission to a regulatory regime. EPA sought to unilaterally impose requirements on CAFOs, in the absence of pollutant discharges or any otherwise unlawful actions, by requiring them to seek a permit which, according to the regulations, inevitably would restrict the CAFOs' operations. This is what the Second Circuit said could not be done, and the quoted passage stands for no more than that.

In the second decision, industry petitioners had challenged EPA's attempt to draft around the limitation that had been imposed by the Second Circuit. *Nat'l Pork Prods. Council v. U.S. Env'l Prot. Agency*, 635 F.3d 738 (5th Cir. 2011). Instead of regulating a CAFO with the "potential to discharge," EPA revised the CAFO regulation to enforce its "duty to apply" where a CAFO "proposes to discharge," but EPA defined that phrase as being a CAFO "designed,

constructed, operated, and maintained in a manner such that the CAFO will discharge." *Id*. at 750. In other words, even in the absence of an *actual proposal to discharge*, as the Permitees have provided in this matter, EPA would infer such a proposal from the physical characteristics of the CAFO. The Fifth Circuit rejected this attempt. As with the Second Circuit's decision in *Waterkeeper*, the Fifth Circuit in *National Pork* addressed only the EPA's authority to compel permit *applications* in the absence of actual discharges, not the Agency's quite different authority to *issue a CWA permit* in response to a voluntary application describing an *actual proposal* to discharge.

4. The CWA Storm Water Permitting and Effluent Guidelines Programs Demonstrate That Congress Did Not Constrain EPA's Authority to Issue This Permit.

EPA can exercise its jurisdiction whenever a person applies for a permit in order to remain in compliance with the law if circumstances make a discharge necessary. Nowhere is this authority better illustrated than in the storm water permitting and effluent guidelines programs of the Act.

a. The CWA Storm Water Permitting Program Authorizes Permits for Indeterminate Discharges.

Storm water permitting constitutes a central feature of the Act's Section 402 NPDES program. The statutory authority to permit future, uncertain, episodic discharges of storm water has existed in the CWA since passage of the landmark 1972 Federal Water Pollution Control Act Amendments, which later became known as the CWA. Pub. L. No. 92-500, 86 Stat. 816 (1972). The 1972 legislation established the Section 301 prohibition on unpermitted pollutant discharges and the Section 402 NPDES permit program. *Id.* at 844, 880. The same, original statutory commands and definitions that provide EPA's authority to permit discharges from the Laboratory's outfalls also provide the basis for permitting episodic storm water discharges.

In 1987, Congress enacted amendments to the CWA that required EPA to undertake rulemaking and implement comprehensive permitting for storm water pollutant sources. Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7 (1987). While the 1987 amendments breathed new life into EPA's storm water permitting program, they did not augment the original statutory authority to deal with these future, episodic discharges. The amendments added subsection 402(p), which directs EPA to issue permits that will authorize future storm water discharges from municipal and industrial point sources in the event that precipitation, together with other circumstances at a facility, result in a discharge. Pub. L. No. 100-4, 101 Stat. 7, 6970 (1987) (codified as amended at 33 U.S.C. § 1342(p)(2)(B)—(D)).

The CWA stormwater permitting program is vast. The National Academy of Sciences estimated in 2009 that EPA and approved States had provided NPDES storm water discharge authorizations to about 7,000 municipalities and 100,000 industrial facilities. *See* Nat'l Research Council, et al., *Urban Stormwater Management in the United States* 36 (2009). In addition, NPDES storm water permit coverage is authorized for about 200,000 construction projects each year. *Id.* Storm water discharge permit holders are required to implement a variety of best management practices to retard, retain and control the runoff of storm water containing pollutants ranging from eroded soil at construction sites to petroleum and chemicals at industrial sites. *Id.*

Retention basins are a typical and widely used control measure to retard and retain storm water so as to capture sediment and other pollutants washed by precipitation runoff from the facility property. Retention basins are designed to impound storm water for a time sufficient for the pollutants to settle out and leave the storm water clean enough to be discharged by releasing the cleaner water near the basin's surface into receiving waters. 3 Michael L. Clar, Billy J.

Barfield & Thomas P. O'Connor, *Stormwater Best Management Practice Design Guide: Basin Best Management Practices* § 222 (2004). Water levels in retention basins also can be lowered to create storage capacity for runoff from the next storm.

Retention basins are designed to control precipitation events of a certain size—*e.g.*, the 25-year storm or the 50-year storm. *Id.* § 2-2. In other words, if a future precipitation event does not exceed the "design storm," the control measure should be sufficient to promote settling of pollutants and should result in a discharge that meets water quality objectives. If a precipitation event exceeds the design and a discharge of partially treated storm water occurs, however, the permit shields the facility from liability for that exceptional circumstance.

Thus, the CWA allows EPA to issue permits authorizing future discharges—both expected discharges based upon approved design criteria (discharges from drawing down the basin following a smaller storm), and unexpected discharges that were not planned for in the design (overflow from a storm larger than the basin's design will accommodate). Unplanned discharges can occur due to a number of meteorological and other circumstances beyond the discharger's control, but EPA is not required to deny permit coverage because it believes the circumstances that would result in a discharge may be remote.

For storm water permitting, the relevant circumstances include extreme swings between periods of normal-to-heavy precipitation and periods of dry weather, including drought. It is not uncommon for extended periods of time to pass without any discharge pursuant to the discharge authorization granted by a storm water permit. *See generally Drought Monitoring,* National Weather Service, https://www.weather.gov/ilm/drought (last visited June 29, 2022). Extreme

and prolonged drought conditions can leave geographic areas with no precipitation for years, especially in the arid Western and Southwestern regions of the United States. *Id.*

If prolonged periods devoid of discharges were to provide a basis for denying applications for renewal of NPDES storm water discharge permits, EPA's Section 402(p) permitting program would be in shambles. Large, unanticipated storms do occur, and when they do, there will be discharges of only partially treated water because runoff will exceed the design capacity of retention basins.

For a number of years, the Laboratory occupied a similar situation with respect to Outfall 051. The Laboratory designed the evaporation equipment to handle the expected volume of wastewater. The operating principle had been that, **if** the evaporation equipment operated reliably and continuously, **and if** the wastewater volume did not increase due to a change in the Laboratory's mission, **then** Outfall 051 should not be needed. But if the evaporation equipment became unavailable due to malfunction or maintenance needs, and/or there was an increase in treatment demands, then the Laboratory would need an authorization to discharge treated wastewater via Outfall 051. The Laboratory has made this perfectly clear in its submissions, as Petitioners acknowledge. Like the storm water discharger in an arid region, the operating plan had been that the Laboratory might not discharge via Outfall 051 for extended periods, but LANL consistently sought a permit that specifically would authorize the use of Outfall 051 if circumstances made a discharge necessary – a permit that would make that discharge lawful. Thus, even if the Laboratory had not changed its operational plan to make regular use of Outfall 051, as it has done, the statute contemplates that EPA would have authority to permit the outfall for use when circumstances require.

The same must be said with respect to Outfalls 13S, 03A027 and 05A055. Permitees have proposed to use these outfalls when necessary, and have clearly explained the operational circumstances that would require a discharge, and that in several cases in the past have so required discharges. Permitting those contingent future uses of the outfalls is a legitimate and appropriate exercise of EPA's authority.

b. The CWA Effluent Guidelines Program Authorizes Permitting for Indeterminate Discharges.

EPA's implementation of the Act's effluent limitation guidelines ("ELG") program provides another useful analogy demonstrating that the Agency has authority to regulate indeterminate discharges by establishing effluent limitations, to be applied through NPDES permits, in the event that circumstances necessitate a discharge. EPA's authority for its ELG program derives from the same provisions of the CWA that govern its establishment of effluent limitations in the Permit for all outfalls at the Laboratory. 33 U.S.C. §§ 1311, 1314.

EPA has promulgated the full suite of ELGs for new and existing direct and indirect dischargers in the Fertilizer Manufacturing Point Source Category. 40 C.F.R. § 418. For the Phosphate Subcategory, EPA determined that direct dischargers are capable of achieving "no discharge of process wastewater pollutants to navigable waters." *E.g., id*. § 418.12(a). The Agency recognized, however, that despite adequate conservation and recirculation of water, discharges could occur via runoff from calcium sulfate storage piles at such facilities due to "chronic or catastrophic precipitation events" that could overwhelm the surge capacity of water storage infrastructure. EPA therefore allowed such discharges in the event of storms greater than the applicable design criteria. *Id*. The Fertilizer ELGs illustrate that, beyond the broad stormwater permitting program, indeterminate discharges of *process wastewater* may be

authorized under the NPDES permitting program in circumstances that, while they may be rare, have been anticipated and stated in the permit application. Thus, Petitioners' contrary interpretation of the statute should be rejected.

5. Region 6's Practice Shows That This Permit is Not Unusual.

Petitioners insinuate that the permit in this matter was issued for some unique and improper purpose. The Region 6 pattern of practice refutes that suggestion. EPA Region 6 has a long-standing and consistent practice of issuing NPDES permits to facilities that are not currently discharging and will only do so if necessary, when certain circumstances arise.

The permit in this proceeding is by no means unusual. In New Mexico, for example, EPA has issued NPDES permits authorizing:[43]

- Discharges of contaminated wastewater as necessary to sustain a remediation program when underground injection facilities are not available to dispose of withdrawn groundwater (Kirtland Air Force Base (NM0031216));
- Discharges of wastewater from coal preparation areas when necessary to prevent interference with the preparation process (Lee Ranch Coal Co., Lee Ranch Mine (NM0029581));
- Discharges when necessary to respond to emergencies (Navajo Dam DWC & NSW, Inc. (NM0030953)); and
- Discharges of industrial and sanitary wastewater when required due to significant precipitation events (Chevron Mining Inc., Ancho Mine (NM0030180), Chevron

[43] New Mexico NPDES permits are readily available online. *See* EPA, *New Mexico NPDES Permits*, https://www.epa.gov/npdes-permits/new-mexico-npdes-permits (June 27, 2022).

Mining Inc., Questa Mine (NM0022306), Lee Ranch Coal Co., El Segundo Mine (NM0030996), Village of Springer Water Treatment Plant (NM0030627), PAA-KO Communities Sewer Association (NM0030724), Maxwell Wastewater Treatment Plant (NM0029149), Mora Independent School District (NM0031097), City of Raton Water Filtration Facility (NM0029891), Rio Grande Resources Corp., Mt. Taylor Mine (NM0028100)).

6. Petitioners' Arguments are Based on a False Premise – the Assertion that RLWTF is Categorically Required to Obtain a RCRA Permit Absent the Permit for Discharges from Outfalls 051 is In Error.

a. The RLWTF is Exempt from RCRA Permitting Regardless of Whether EPA issues the Permit for Discharges From Outfall 051.

As explained above, of all the facilities integrated with the outfalls that are subject to challenge in the Petition, Petitioners only make allegations concerning RCRA requirements for the RLWTF and Outfall 051. *See, e.g.*, Petition ¶ 13 (citing Petition Ex. A,[44] which discusses that the RLWTF is not authorized to receive listed hazardous waste but did receive a small amount of corrosive characteristic waste). Thus, even if Petitioners are correct in their view that NPDES permit coverage is improper for outfalls that may not constantly discharge, which we demonstrated above is not the case, Petitioners' arguments relating to RCRA standards and permitting could apply, at most to this one outfall, not to the other five outfalls addressed by the Petition. But even the possibility of RCRA applicability at Outfall 051 does not arise because: (1) the permit was properly issued for actual discharges from Outfall 051 (and thus the Board need not even reach Petitioners' RCRA issue); and (2) Petitioners' assertion that the WWTU

[44] David Moss, et al., *Report – Elimination of Liquid Discharge to the Environment from the TA-50 Radioactive Liquid Waste Treatment Facility*, Los Alamos Nat'l Lab. (June 1998).

exemption would be inapplicable to the RLWTF and Outfall 051 in the absence of NPDES permit coverage is incorrect.

Petitioners misrepresent the applicable legal requirements in arguing that only EPA's issuance of the permit gives effect to the WWTU exemption from RCRA permitting. *Id.* ¶¶ 13-16. Petitioners point to 40 C.F.R. § 264.1(g)(6), which exempts the RLWTF tanks and associated ancillary equipment (such as Outfall 051) from the substantive RCRA standards. *Id.* at 36. But Petitioners never mention 40 C.F.R. § 270.1(c)(2)(v), which provides that owners and operators of exempt wastewater treatment units also "are not required to obtain a RCRA permit." *Id.*

Both section 264 and section 270 contribute to the WWTU exemption, one for substantive RCRA requirements, and one for RCRA permitting. Both provisions point to section 260.10 for the definition of a "wastewater treatment unit." The key element of that definition is that such a unit must be "subject to regulation under either section 402 or 307(b)" of the CWA. 40 C.F.R. § 260.10.

EPA has a long standing and consistent interpretation of what is meant by this definition in its regulation. Over 30 years ago, EPA's Office of Solid Waste and Emergency Response (OSWER) issued an official directive addressing the issue.[45] OSWER emphasized that:

> It is important to note that it is not necessary that…Clean Water Act permits actually be issued for the units to be eligible for the RCRA exemption; it is sufficient that the facility be subject to the requirements of the Clean Water Act.[46]

[45] Ex. F, Attachment A, Exemption from Permitting Requirements for Waste Water Treatment Units, OSWER 9522.1992(01), 1992 WL 754630 (Jan. 16, 1992).
[46] *Id.* at 27.

Explaining further, OSWER made clear that the key phrase in § 260.10 –"subject to regulation under . . . Section 402" – covers facilities "which are permitted, were ever permitted, or should have been permitted under NPDES."[47]

The Agency's directive settles the question of whether the RLWTF and Outfall 051 are exempt from RCRA permitting under 40 C.F.R. §§ 270.1 and 260.10. The Board should give deference to EPA's (*i.e.*, OSWER's) well-settled and reasonable interpretation of its own regulation. *See, Kisor v. Wilkie, Sec'y of Veterans Affairs***,** 139 S. Ct. 2400 (2019). Because the Laboratory has held an NPDES permit for Outfall 051 since 1978, and clearly was required to do so, the directive concludes that the WWTU exemption applies.[48]

As Petitioners point out, in the past Laboratory technical staff also had examined the issue of continuous renewal of the NPDES permit for Outfall 051 in relation to the question of retaining the WWTU exemption. Petition ¶¶ 13-14. To the extent that such examination included an assumption made as a basis to provide a technical analysis, the assumption was mistaken then, just as Petitioners are mistaken now.

In the end, however, even if Petitioners' understanding of the WWTU exemption were correct, the exemption would still apply to the RLWTF and Outfall 051. Region 6 properly issued the NPDES permit authorization for discharges from this outfall, originally in 1978 and

[47] *Id.*, Attachment A at 15.

[48] Petitioners' contention that Region 6 should have resolved a supposed "conflict" between the CWA and RCRA by interpreting the CWA to exclude permitting authority for a "possible" discharge, Petition ¶¶71-73, has no relevance here, as the ongoing discharges from Outfall 051 are not merely "possible." As explained earlier, those discharges are actual and fully documented in the administrative record.

again most recently in 2022, as explained above, and even Petitioners agree that the Region's permitting action triggers the exemption.

b. Applicability of RCRA Permitting Requirements for RLWTF Absent the WWTU Exemption is a Complex Question that Would Require Significant Analysis of Current Operations to Address.

While the question of whether the RLWTF would be subject to RCRA permitting requirements absent the WWTU exemption is not before the Board, it is important to briefly address Petitioners' assertions that Triad has *conceded* that the RLWTF is subject to a RCRA permitting requirement absent the exemption. Neither Triad, the DOE, or prior operators of the Laboratory have made such a concession. To the extent that Petitioners rely on a report from over a quarter century past, that technical (non-legal) analysis was conducted to examine how to strengthen administrative controls over operations at that time in a manner that would obviate the need for RCRA permitting for the RLWTF. Petition Ex. A. Furthermore, corrective action, including for remediation of legacy solid waste management units referenced by Petitioners, is governed by a separate requirement and is explicitly *not* subject to RCRA permitting requirements. Petition Ex. WW (addressing that obligations under the Consent Order are expressly not covered by RCRA permitting requirements).[49]

In other words, the "either/or" choice that Petitioners attempt to frame is, at best, subject to significant uncertainties. The Laboratory has engaged in litigation at both the federal and state levels which, in part, opposes counter-factual categorical statements about a RCRA permit requirement for the RLWTF. *See, generally, United States v. N.M. Env'l Dept.*, No. 10-CV-01251 (D. N.M. Dec. 29, 2010); *United States. v. Curry*, No. A-1-CA-31030 (N.M. Ct. App.

[49] Dennis J. Erickson & Tom Baca, *Radioactive Liquid Waste Zero Discharge Project Memorandum*, Los Alamos Nat'l Lab. (July 10, 1998)

Dec. 29, 2010). Petitioners misstate the record on this issue in an attempt to frame a false choice between the CWA and RCRA at a theoretical level, which is in any case not relevant in light of issuance of the Permit authorizing actual, ongoing discharges from Outfall 051.

V. CONCLUSION

The Petition reveals no clear factual or legal error, no abuse of discretion by Region 6, and no exercise of discretion or policy consideration warranting the Board's review. The Board should deny the Petition.

Dated: July 1, 2022

*Respectfully submitted,**

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CERTIFICATE OF SERVICE

I hereby certify that, on July 1, 2022, I served the foregoing Permit Applicant's Response to Petition for Review and Statement of Compliance with Word Limitations, in connection with *In re U.S. Department of Energy & Triad National Security, L.L.C.*, on the following persons by e-mail in accordance with the Environmental Appeals Board's September 21, 2020 Revised Order Authorizing Electronic Service of Documents in Permit and Enforcement Appeals:

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Jay Przyborski
U.S. EPA Region 6
1201 Elm Street, Suite 500
Dallas, TX 75270
przyborski.jay@epa.gov
Tel. (214) 665-6605

Dated: July 1, 2022

/s/ James T. Banks
James T. Banks
Hogan Lovells US LLP
Columbia Square
555 Thirteenth Street, NW
Washington, DC 20004
Telephone: 202-637-5802

E-mail: james.banks@hoganlovells.com

Attorney for Triad National Security, LLC

EXHIBIT A

Please print or type in the unshaded areas only.

Form Approved. OMB No. 2040-0086

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER: F NM0890010515 T/A D

LABEL ITEMS	
I.	EPA I.D. NUMBER
III.	FACILITY NAME
V.	FACILITY MAILING ADDRESS
VI.	FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold-faced terms**.

SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED	SPECIFIC QUESTIONS	Mark "X" YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X		B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		X	D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)	X			F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)	X			J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: LOS ALAMOS NATIONAL LABORATORY

IV FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 ARMIJO, KAREN- PERMITTING AND COMPLIANCE PROGRAM MANAGER	(505) 665-7314

V FACILTY MAILING ADDRESS

A. STREET OR P.O. BOX

3 U.S. DOE NNSA LOS ALAMOS SITE OFFICE

B. CITY OR TOWN	C. STATE	D. ZIP CODE
4 LOS ALAMOS	NM	87544

VI FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER

5 3747 WEST JEMEZ ROAD A316

B. COUNTY NAME

LOS ALAMOS

C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
6 LOS ALAMOS	NM	87544	NA

CONTINUED FROM THE FRONT

VII. SIC CODES *(4-digit, in order of priority)*

A. FIRST	B. SECOND
9711 (specify) NATIONAL SECURITY	9661 (specify) SPACE RESEARCH AND TECHNOLOGY
C. THIRD	**D. FOURTH**
9922 (specify) SCIENTIFIC RESEARCH	9611 (specify) ENERGY DEVELOPMENT

VIII. OPERATOR INFORMATION

A. NAME: TRIAD NATIONAL SECUIRTY, LLC

B. Is the name listed in Item VIII-A also the owner? ☐ YES ☑ NO

C. STATUS OF OPERATOR *(Enter the appropriate letter into the answer box; if "Other," specify.)*

F = FEDERAL; S = STATE; P = PRIVATE; M = PUBLIC *(other than federal or state)*; O = OTHER *(specify)*

M (specify)

D. PHONE *(area code & no.)*: A (505) 667-4218

E. STREET OR P.O. BOX: P.O. BOX 1663

F. CITY OR TOWN: LOS ALAMOS

G. STATE: NM

H. ZIP CODE: 87544

IX. INDIAN LAND: Is the facility located on Indian lands? ☐ YES ☑ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES *(Discharges to Surface Water)*: 9 N NM0028355	D. PSD *(Air Emissions from Proposed Sources)*: 9 P P100R1
B. UIC *(Underground Injection of Fluids)*: 9 U DP-1835	E. OTHER *(specify)*: 9 SEE APPENDIX A (specify)
C. RCRA *(Hazardous Wastes)*: 9 R NM0890010515-1	E. OTHER *(specify)*: 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS *(provide a brief description)*

The Los Alamos Ntaional Laboratory is a multidisciplinary/multiprogram laboratory. The Laboratory's central mission is to reduce the nuclear danger through evaluation and stockpile stewardship. It also provides significant programmatic support to many civilian efforts. Because of evolving technolgies and changing national and international priorities, the Laboratory increasingly uses its multidisciplinary research and development capabilities to solve civilian problems in the areas of health, national infrastructure, energy, education, aeronautics, and the environment. Extensive basic research programs in physics, chemistry, metallurgy, mathematics and computers, earth sciences, and electronics support these efforts.

XIII. CERTIFICATION *(see instructions)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE *(type or print)*	B. SIGNATURE	C. DATE SIGNED
William S. Goodrum, Manager Los Alamos Field Office		3-25-2019

COMMENTS FOR OFFICIAL USE ONLY

C

EPA Form 3510-1 (8-90)

CONTINUED FROM THE FRONT

VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
C 7 (specify)	C 7 (specify)
C. THIRD	**D. FOURTH**
C 7 (specify)	C 7 (specify)

VIII. OPERATOR INFORMATION

A. NAME: E 8

B. Is the name listed in Item VIII-A also the owner? ☐ YES ☐ NO

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other," specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

(specify)

D. PHONE (area code & no.): C A

E. STREET OR P.O. BOX

F. CITY OR TOWN: E B

G. STATE

H. ZIP CODE

IX. INDIAN LAND

Is the facility located on Indian lands? ☐ YES ☐ NO

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water): E 9 N

D. PSD (Air Emissions from Proposed Sources): E 9 P

B. UIC (Underground Injection of Fluids): E 9 U

E. OTHER (specify): E 9 (specify)

C. RCRA (Hazardous Wastes): E 9 R

E. OTHER (specify): E 9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

EXTRA PAGE FOR SIGNATURE

XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
Michael W. Hazen, Associate Laboratory Director ESHQSS		3-20-19

COMMENTS FOR OFFICIAL USE ONLY: C

EPA Form 3510-1 (8-90)

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	35.00	52.00	26.00	106.00	19.00	9.00	Perennial Reach of Sandia Canyon
							Water Quality Segment 20.6.4.126 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Power Plant Once Through Cooling	49,652 GPD	Dechlorination	2	E
	Sanitary Wastewater System (SWWS)	26,432 GPD	Grit Removal	1	M
	Treated Effluent		Mixing	1	O
			Screening	1	T
001			Sedimentation (settling)	1	U
			Dechlorination	2	E
			Disinfection (chlorine)	2	F
			Activated Sludge	3	A
001			Pre-Aeration	3	B
		(sludge)	Composting	5	G
		(sludge)	Drying Beds	5	H
		(sludge)	Landfill	5	Q
001	Sanitary Effluent Reclamation	38,807 GPD	Evaporation	1	F
	Facility (SERF) Treated Effluent		Reverse Osmosis (Hyperfiltration)	1	S
			Chemical Precipitation	2	C
			Dechlorination	2	E
001			Neutralization	2	K
			Reduction	2	L
		(reuse of SWWS Effluent)	Reuse/Recycle of Treated Effluent	4	C
			Landfill	5	Q
001			Pressure Filtration	5	R
	Strategic Computing Complex (SCC)	50,679 GPD	Dechlorination	2	E
	Treated Cooling Tower Blowdown		Disinfection (other)	2	H
			Reduction	2	L

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	C. DURATION (*in days*)
001	Power Plant Once Through Cooling	7.0	12.0	0.050 MGD	0.195 MGD	49,652 GALLONS	194,524 GALLONS	365
	Sanitary Wastewater System (SWWS) Effluent	7.0	12.0	0.026 MGD	0.209 MGD	26,432 GALLONS	209,173 GALLONS	365
	Sanitary Effluent Reclamation Facility (SERF) Effluent	7.0	12.0	0.040 MGD	0.122 MGD	39,807 GALLONS	121,914 GALLONS	365
	SCC Cooling Tower Blowdown	7.0	12.0	0.051 MGD	0.105 MGD	50,679 GALLONS	104,804 GALLONS	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☑ YES (*complete the following table*) ☐ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
Compliance Schedule to meet 6T3 Temperature of 20C. The effluent limit and monitoring requirement of 6T3 - 20C are effective on the date one-day before the permit expiration date (9/29/19).	001	Power Plant Once Through Cooling, SWWS Effluent, SERF Effluent, SCC Cooling Towers Blowdown	Pursuent to 20.6.4.15.D NMAC the water quality standard is nder review to determine if natural thermal conditions are prevneting the attainment of coldwater aquatic life use. The receiving water was listed as impaired for temperature in the 2018-2020 Integrated report (305d/305b)and assigned an IR category of 5B inidicating the need for review of the water quality standard.	10/1/14	9/29/19

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Aniline Carbon Disulfide Cresol Strontium Styrene Uranium Vanadium	Sanitary Wastewater System (SWWS) Effluent. A review of the waste stream profiles associated with the water treated at the SWWS identified the 7 Form 2C-3 pollutants listed in Section V.D.1.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Whole Effluent Toxicity 7 Day Chronic Toxicity, Critical dilutin 100% with a dilution series of 32%, 42%, 56%, 75%, and 100%.
Ceridoaphnia dubia, 24-hr composite, 1/5 Years
Pimephales promelas, 24-hr composite, 1/5 Years

See the DMR Summary Report provided in Attachment D of the Fact Sheet provided with the permit application.

VIII. CONTRACT ANALYSIS INFORMATION

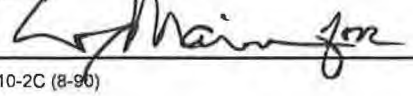
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli
Pacific EcoRisk	2250 Cordelia Rd., Fairfield CA 94534	(707)207-7760	Whole Effluent Toxicity

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE 	D. DATE SIGNED 3-20-19

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CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	**D. DATE SIGNED**
W. Goodrum	3-25-19

EPA Form 3510-2C (8-90)

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 001

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAX DAILY VALUE (1) CONCENTRATION	a. MAX DAILY VALUE (2) MASS	b. MAX 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAX 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	1.8	4.996	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	58.1	161.3					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	5.85	16.24					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	7.2	19.985	7.2	13.04	1.986	2.55	49	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.207	0.5746	(O)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.3326 (A)		VALUE 0.2171 (A)		VALUE 0.1539 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 15.6 (B)		VALUE 14.1 (B)		VALUE 13.4 (B)		13	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 20.9 (B)		VALUE 20.6 (B)		VALUE 20.0 (B)		13	°C		VALUE NA		NA
i. pH	MINIMUM 7 (C)	MAXIMUM 8.5 (C)	MINIMUM 7.3 (C)	MAXIMUM 7.9 (C)			208	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAX DAILY VALUE (1) CONCENTRATION	a. MAX DAILY VALUE (2) MASS	b. MAX 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAX 30 DAY VALUE (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		3.62	10.05					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0	0	0	0	0	0	208	mg/L	lbs	NA	NA	NA
c. Color	X		5	NA					1	PCU	NA	NA	NA	NA
d. Fecal Coliform	X		71.7	(K)	15.4	(K)	6.87	(K)	96	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.152	0.4219					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		1.69	4.69					1	mg/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		1.14	3.16					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.46	<4.05	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		1.83	5.079	(O)				1	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<1.65	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		10.1	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.39	NA	(E)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total		X	<0.15	NA	(E)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		12.9	35.81					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<0.0916	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		1	2.776	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants		X	<0.017	<0.0472	(E)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		<19.3	<0.0536	(G,N)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		16.8	0.0466	(H)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		82.4	0.2287	(H)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)	X		<0.3	<0.0008	(F,N)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		37.9	0.1052	(D,O)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		2930	8.133	(O)				1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		1	0.0028	(H)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		4.78	0.0133	(D)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<0.0028	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<0.0056	(E,N)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	001

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<0.003	(F)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		<2	<6e-03	(G,N)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<6e-04	(F)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<8e-04	(F)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		<3	<8e-03	(F,N)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		5.45	0.0151					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<0.001	(F)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		<0.067	<2e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<2e-03	(G,N)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)			X	<2	<6e-03	(F)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<8e-04	(f)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		60	0.1665					1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)		X		<1.67	<5e-03	(F,N)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		<1.67	<5e-03	(E,O)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS: Analytical Result = <1 pg/L (lower than the MDL) however, the MDL used is greater than 10 pg/L.											

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<5e-03	(F)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<5e-03	(F)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)		X		1.81	5e-03	(H,O)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(I)									
5V. Bromoform (75-25-2)		X		3.16	9e-03	(H)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)		X		1.47	4e-03	(H)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<0.005	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)		X		0.82	2e-03	(D,O)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)		X		1.41	4e-03					1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(I)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<9e-04	(F,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)		X		<0.333	<9e-04	(F,O)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<5e-03	(F)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)		X		<0.333	<9e-04	(F,O)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(I)					ug/L	lbs	NA	NA	NA
31V. Vinyl Chloride (75-01-4)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.32	<1e-02	(F)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.19	<9E-03	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.19	<9E-03	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.19	<9E-03	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.319	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<4.15	<1e-02	(F)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.32	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.319	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.19	<9e-03	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<5E-03	(F)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)		X		5.09	1e-02	(H)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.19	<9e-03	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.436	<1e-03	(F)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.19	<9e-03	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.19	<9e-03	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.319	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.319	<9e-04	(F)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.72	<1E-02	(F)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.319	<9e-04	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.19	<9e-03	(F)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)			X	<3.19	<9e-03	(F,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.319	<9E-04	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.319	<9E-04	(F)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Trichlorobenzene (120-82-1)			X	<3.19	<9E-03	(F)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.07	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.07	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.07	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.07	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.07	<2E-04	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.805	<2E-03	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.07	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.105	<3E-04	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.07	<2E-04	(F)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.07	<2E-04	(F)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	001

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.07	<2E-04	(F)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)		X		<0.0422	<1E-04	(F,J,O)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<1.58	<4E-03	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL -001

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is below the Method Detection Limit (MDL). There is not an EPA Region 6 approved Method Quantification Limit (MQL). The value provided is the MDL.
F	The analytical result provided is below the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
G	The analytical result provided is below the MDL but is above the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is above the MDL but is below the EPA Region 6 MQL.
I	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
J	Results were obtained using the EPA Aroclor Method 608.3 as required by the Form 2C.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM 2C NPDES EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER *(list)*	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER *(name)*
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A027	35.00	52.00	26.00	106.00	19.00	9.00	Perennial Reach of Sandia Canyon
							Water Quality Segment 20.6.4.126 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. *(list)*	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION *(list)*	b. AVERAGE FLOW *(include units)*	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A027	Strategic Computing Complex (SCC)	50,679 GPD	Dechlorination	2	E
	Treated Cooling Tower Blowdown		Disinfection (other)	2	H
			Reduction	2	L

OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW A. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW A. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	C. DURATION (*in days*)
03A027	Treated Cooling Tower Blowdown	7.0	12.0	0.051 MGD	0.105 MGD	50,679 GALLONS	104,804 GALLONS	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Aniline Carbon Disulfide Cresol Strontium Styrene Uranium Vanadium	Sanitary Effluent Reclamation Facility (SERF) Effluent Makeup Water: The effluent from the Sanitary Wastewater System (SWWS) treatment plant is routed to SERF for additional treatment so that it can be recycled and used as makeup water at the SCC Cooling Towers. A review of the waste stream profiles associated with the water treated at the SWWS identified the 7 Form 2C-3 pollutants listed in Section V.D.1.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Whole Effluent Toxicity 7 Day Chronic Toxicity. Critical dilution of 23% with dilution series of 10%, 13%, 17%, 23%, and 31%.

* Ceridoaphnia dubia, 3-hr composite, 1/5 Years
* Pimephales promelas, 3-hr composite, 1/5 Years

WET testing at Outfall 03A027 was performed on March 16, 18,and 20 of 2015 per the permit requirements. The results indicated that the effluent from Outfall 03A027 passed the test for both Ceridoaphnia dubia and Pimephales promelas. No further WET testing has been performed. See the WET Test Summary Report provided in Attachment E of the Fact Sheet provided with the permit application.

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli
Pacific EcoRisk	2250 Cordelia Rd., Fairfield CA 94534	(707)207-7760	Whole Effluent Toxicity

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
for	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
W S Goodrum	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 03A027

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (*BOD*)	3.37	2.95					1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	47.4	41.5					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	12.7	11.1					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	5.52 (A)	4.83	4.86 (A)	2.93	2.31 (A)	0.976	10	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.112	0.098	(P)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.105 (A)		VALUE 0.072 (A)		VALUE 0.051 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 19 (B)		VALUE 18.1 (B)		VALUE 17.3 (B)		13	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 24.6 (B)		VALUE 23.0 (B)		VALUE 22.8 (B)		15	°C		VALUE NA		NA
i. pH	MINIMUM 7.4 (C)	MAXIMUM 9.1 (C)	MINIMUM 7.7 (C)	MAXIMUM 8.3 (C)			51	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		2.98	2.61					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0 (P)	0	0 (P)	0	0 (P)	0	103	mg/L	lbs	NA	NA	NA
c. Color	X		<5	NA	(F,E,O)					PCU	NA	NA	NA	NA
d. Fecal Coliform	X		6.3 (A,L)	NA	6.3 (A,L)	NA	1.9 (A,L)	NA	48	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.107	0.094					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		0.950	0.831	(P)				1	mg/L	lbd	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		2.27	1.99					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.41	<1.23	(E)					mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		3.55 (A, P)	3.10	3.55 (A, P)	2.14	2.19 (A, P)	0.928	9	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total	X		2.79 (A)	NA	2.79 (A)	NA	1.9 (A)	NA	2	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		12.3	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total	X		5.72	NA					1	pCI/L	NA	NA	NA	NA
(4) Radium 226, Total	X		5.47	NA					1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		18.0	15.74					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<0.0289	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		6.0	5.25	(P)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		0.0204	0.018					1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		23.2 (A)	0.0203	23.2 (A)	0.014	19.4 (A)	0.0082	3	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		8.92	0.0078	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		109	0.0953					1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<0.0003	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		<33	<0.0289	(E, O, P)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		2050	1.79	(P)				1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		0.868	0.0008	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		3.63	0.0032	(D)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<0.0009	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<0.0017	(E, O)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A027

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<9e-4	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		<2	<0.002	(H,O)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<2e-4	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		<3	<0.003	(G,O)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		16.3	0.0143					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		<0.067	<1e-4	(H,O)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<5e-4	(H,O)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<0.002	(G,O)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<5e-4	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		206	0.180					1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<0.002	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		5.03	0.0044	(P)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS	Analytical Result = <10.6 pg/L (less than the MDL), however, the detection limit (MDL) was greater than the EPA Region 6 MQL.										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<2e-3	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<2e-3	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)		X		<0.333	<3E-4	(G,O,P)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<3e-4	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<1e-3	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)		X		<0.333	<3e-4	(E,O,P)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<3e-4	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<3e-4	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<3e-4	(G,M)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)		X		<0.333	<3e-4	(G,O,P)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)		X		2.94	3e-3	(I)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)		X		<0.333	<3e-4	(G,O,P)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<3e-4	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.0	<4e-3	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.0	<3e-6	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.0	<3e-3	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.0	<3e-3	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.9	<3e-3	(B)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<3.0	<3e-3	(B)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<0.003	<3e-6	(B)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<0.3	<3e-4	(B)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.0	<3e-3	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.41	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.0	<3e-3	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<3E-4	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.0	<3e-3	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.3	<3e-4	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.0	<3e-03	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.3	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.3	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.5	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.3	<eE-4	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.0	<3e-3	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.0	<3E-03	(G,N)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.3	3e-4	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.3	3e-4	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.0	3e-3	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.00739	<6e-6	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.085	<7e-5	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0111	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A027

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.00739	<6e-6	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)		X		<0.0362	<3e-5	(G,K,P)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.167	<1e-4	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A027

A	Calculated using data collected between October 2015 and September 2016.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2015 and September 2016.
C	The pH values provided were determined using data collected between October 2015 and September 2016.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	Results were obtained using the EPA Aroclor Method 608.3 as required by the Form 2C. Please note, however, that PCBs are believed to be present due to the use of recycled treated effluent from SWWS as makeup water in the cooling towers.
L	The E. Coli result is provided as an indicator for Fecal Coliform.
M	Result is for cis- and trans-1,3 dichloropropylene.
N	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
O	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
P	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A048	35.00	52.00	11.00	106.00	15.00	45.00	Ephemeral Tributary to Los Alamos
							Canyon, Water Quality Segment
							Number 20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A048	TA-52-963/964 West and 978/979 East	87,606 GPD	Dechlorination	2	B
	Cooling Towers		Disinfection (other)	2	H
	- Treated Cooling Tower Blowdown		Reduction	2	L

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
03A048	TA-53-963/964 West and 978/979 East Cooling Towers - Treated Cooling Tower Blowdown	7	12	0.088 MGD	0.169 MGD	87,606 GALLONS	168,900 GALLONS	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
for	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
W Goodrum	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 03A048

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	1.86	2.62	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	24.6	34.7					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	2.78	3.92					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	5.90	8.32	5.9	7.06	1.96	1.43	17	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.0382	0.054	(D)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.1689 (A)		VALUE 0.1434 (A)		VALUE 0.0876 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 17.9 (B)		VALUE 16.7 (B)		VALUE 16.1 (B)		13	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 23.5 (B)		VALUE 22.6 (B)		VALUE 21.7 (B)		12	°C		VALUE NA		NA
i. pH	MINIMUM 6.9 (C)	MAXIMUM 8.9 (C)	MINIMUM 7.3 (C)	MAXIMUM 8.7 (C)			208	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		4.22	5.95					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0 (O)	0.00	0.00 (O)	0.00	0.00 (O)	0.00	209	mg/L	lbs	NA	NA	NA
c. Color		X	<5	NA	(E)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	1	NA	(K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.59	0.832					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		3.11	4.38					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.334	0.471					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.44	NA	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		0.192	0.271	0.192	0.23	0.136	0.0997	17	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<1.85	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		16.8	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.189	NA	(E)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total	X		<0.103	NA	(E,N)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		35.5	50.00					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<5e-02	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		13.8	19.45	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		<0.017	<0.02	(F,N)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		<19.30	<0.0272	(H,N)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		76.4	0.108	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		66.4	0.0936	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<4.2e-4	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)		X	<33	<0.0465	(E)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		11800	16.6					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		2.45	3.45e-3					1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	<1	<1.4e-3	(E)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<1.4e-3	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<2.8e-3	(E,N)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A048

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "**X**" in column 2-a for **all** such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column **2-b** for each pollutant you know or have reason to believe is present. Mark "**X**" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		4.26	0.006	6.2	7.4e-3	4.06	3e-3	5	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<3e-04	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		9.43	1.3e-2	(D,I)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		1.06	1.5e-3					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<7e-04	(G)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)			X	<0.067	<9e-05	(H)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<8e-04	(H,N)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<3e-03	(G,N)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<8e-04	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)			X	<3.3	<5e-03	(G)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)		X		<1.67	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total			X	<1.67	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS	Analytical Result = <10.6 pg/L was less than the MDL. The MDL used is greater than the EPA MQL of 10 pg/L.										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)		X		<0.333	<5e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<5e-04	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	2e-03	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<5e-04	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.00	<7e-03	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.00	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.00	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.00	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.30	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.90	<5e-03	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.30	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.0	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.0	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.0	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	Na
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.410	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.0	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.30	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	Na
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.00	<4e-03	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.300	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)			X	<3.0	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (1,2,3-cd) Pyrene (193-39-5)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.50	<5e-03	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.300	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.0	<4e-03	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.300	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.300	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.00	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.007	<1e-05	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.081	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0105	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA

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EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A048

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1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.007	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0354	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.158	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A048

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A113	35.00	52.00	3.00	106.00	15.00	43.00	Ephemeral Reach of Sandia Canyon
							Water Quality Segment 20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A113	TA-53-592 Cooling Tower	1,576 GPD	Disinfection (other)	2	H
	- Treated Cooling Tower Blowdown		Dechlorination	2	E
			Reduction	2	L
03A113	Storm Water	16,763 GPD	NA	NA	NA

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	C. DURATION (*in days*)
03A113	TA-53-592 Cooling Tower - Treated Cooling Tower Blowdown	7.0	12.0	0.001576 MGD	0.01459 MGD	1,576 GALLONS	14,590 GALLONS	365
	Storm Water	0.9	1.6	0.016763 MGD	0.13678 MGD	16,763 GALLONS	136,678 GALLONS	49

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

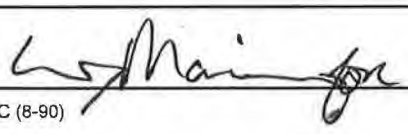
Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE W Goodrum	D. DATE SIGNED 3-25-19

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 03A113

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (*BOD*)	1.53	0.186	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	37.1	4.52					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	2.55	0.31					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	5.68	0.692	5.68	0.167	1.80	2.36e-2	16	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	<0.017	<2.1e-3	(E)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.01459 (A)		VALUE 0.0035 (A)		VALUE 0.001576 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 16.3 (B)		VALUE 14.9 (B)		VALUE 13.4 (B)		12	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 26.0 (B)		VALUE 23.8 (B)		VALUE 21.8 (B)		13	°C		VALUE NA		NA
i. pH	MINIMUM 6.7 (C)	MAXIMUM 8.7 (C)	MINIMUM 6.8 (C)	MAXIMUM 8.5 (C)			196	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		0.589	7.2e-02					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0 (O)	0.0	0.0 (O)	0.0	0.0 (O)	0.0	201	mg/L	lbs	NA	NA	NA
c. Color	X		<5	NA	(E,N)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(E,K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.84	1.0e-01					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		0.779	9.5e-02					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.249	3.0e-02					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.44	NA	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		0.302	3.7e-02	0.302	8.89e-3	0.122	1.61e-3	16	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total	X		2.95	NA					1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		6.66	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.0833	NA	(E)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total		X	<-0.0737	NA	(E)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		220	26.8					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<4e-03	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		74.7	9.1	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants		X	<0.017	<2.1e-3	(E)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		<19.30	<2.4e-3	(H,N)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		60.3	7.3e-03	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		49.3	6.0e-03	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		<33	<4.0e-3	(E,N)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		7680	0.935					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		2.02	2.5e-04					1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		2.4	2.9e-04	(D)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<1.2e-4	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<2.4e-4	(E,N)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A113

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		<2	<2e-04	(H,N)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		7.87	1e-03	(D,I)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		10.4	1e-03					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)		X		0.518	6e-05	(D)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		<0.067	<8e-06	(H,N)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<7e-05	(H,N)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)			X	<2	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<7e-05	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		<3.3	<4e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		6.31	8e-04					1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS Analytical Result = <11.1 pg/L was less than the MDL. The MDL used was greater than the EPA MQL of 10 pg/L.											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<4e-05	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)		X		<1.67	<2e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.21	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.313	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	Na
4B. Benzidine (92-87-5)			X	<4.06	<5e-04	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.313	<4e-5	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.313	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.427	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.13	<4e-04	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.313	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.13	4e-04	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.65	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.313	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.13	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.13	<4e-04	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.313	<4e-05	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.313	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.13	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	Na	NA	NA
2P. α-BHC (319-84-6)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.0068	<8e-07	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.0781	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0102	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A113

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.0068	<8e-07	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	Na	NA
19P. PCB-1254 (11097-69-1)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0354	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.153	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A113

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A160	35.00	51.00	47.00	106.00	17.00	49.00	Ten Site Canyon, Tributary to Mortandad
							Canyon Water Quality Segment
							20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A160	National High Magnetic Field	2,567 GPD	Dechlorination	2	E
	Laboratory (NHMFL) Cooling Towers				
	- Treated Cooling Tower Blowdown				

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
03A160	National High Magnetic Field Laboratory (NHMFL) Cooling Towers - Treated Cooling Tower Blowdown	2	7	0.002567 MGD	0.00647 MGD	2,567 GALLONS	6,470 GALLONS	87

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect you discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules fc construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

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V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	Biological Oxygen Demand, General Chemistry, Pesticides, Polychlorinated Biphenyls, Radiochemistry, Semi-Volatile Organic Compounds, Total Metals, Total Suspended Solids, Volatile Organic Compounds
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli
SWRI Southwest Research Institute	Division 01 6220 Culebra Rd San Antonio TX7838	(210) 522-3867	Arsenic, Selenium

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	**D. DATE SIGNED**
for	3-20-19

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CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	**D. DATE SIGNED**
W S Goodrum	3-25-19

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)* — OUTFALL NO. 03A160

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	<1.0	<0.054	(D,F)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	7.3	0.394	(D,E)				1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	1.16	0.0626	(D)				1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	1.4	0.0756	1.4	0.0467	1.1	0.0236	14	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.0285	0.00154	(D,F)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.0065 (A)		VALUE 0.004 (A)		VALUE 0.0026 (A)		87	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 20.4 (B)		VALUE 18.5 (B)		VALUE 16.9 (B)		11	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 25.3 (B)		VALUE 23.9 (B)		VALUE 23.4 (B)		11	°C		VALUE NA		NA
i. pH	MINIMUM 7 (C)	MAXIMUM 8.8 (C)	MINIMUM 7.6(C)	MAXIMUM 8.7(C)			182	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		0.193	0.0104	(D,E)				1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0 (N)	0	0 (N)	0	0 (N)	0	48	mg/L	lbs	NA	NA	NA
c. Color	X		5	NA	(D, G)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(D,F,K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		1.19	0.0643	(D)				1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		4.51	0.244	(D)				1	mg/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.035	0.00189	(D,E,F)				1	mg/L	lbs	NA	NA	NA
h. Oil and Grease	X		1.96	0.106	(D,E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		3.1	0.167	3.1	0.103	0.3249	0.00696	14	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<0.96	NA	(D,F)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		15.9	NA	(D)				1	pCi/L	NA	NA	NA	NA
(3) Radium, Total	X		<0.379	NA	(D)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total	X		1.03	NA	(D)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		29.9	1.61	(D)				1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.03	<0.0016	(D,F)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		0.04	0.00216	(D)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		0.0495	0.00267	(D,E,G)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)		X	0	0	0	0	0	0	4	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		1.4	8E-05	(D)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		216	0.0117	(D)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<1	<5e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		45.2	0.00244	(D)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		5810	0.314	(D)				1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		15.5	8e-04	(D)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	<2	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<2.5	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)		X	<1	<5e-05	(D,F)				1	ug/L	lbs	NA	NA	NA

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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at **least** one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<3.5	<2e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		2.59	0.0001	2.59	0.0863	2.25	0.048	4	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<1	<5e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		30.4	0.0016	(D)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		7.48	0.0004	3.82	0.127	1.2	0.025	306	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)		X		1.52	8e-05	(D)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)			X	<0.66	<4e-06	(D,I)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		1.35	7e-05	(D)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		72.3	0.0039	(D)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.45	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		4.4	2e-04	(D)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)		X		21.8	1e-03	3.35	0.112	0.6366	0.014	46	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		5	3e-04	(D,E)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS The result of 10.6 pg/L was less than the MDL. However, the MDL was greater than the MQL of 10 pg/L. (D,I)											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.25	<7e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.0	<5e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.3	<2e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.5	<8e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.25	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.25	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.3	<2e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.25	<1e-05	(D,H,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.3	<2e-05	(D,F)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<3	<2e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.325	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.25	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.5	<3e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.0	<2e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.0	<3e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)		X		8.41	5e-04	(D,E)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.31	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.2	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.0	<2e-04	(D,E,H)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)		X		<0.26	<1e-05	(D,E)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.2	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.0	<2e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlcro-benzene (106-46-7)			X	<0.25	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlcro-benzidine (91-94-1)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)		X		67.4	<4e-03	(D)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131 -11-3)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitro-toluene (121-14-2)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitro-toluene (606-20-2)			X	<2.0	<1e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<3.0	<2e-04	(D,F)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
33B. Hexachloro-benzene (118-74-1)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
34B. Hexachloro-butadiene (87-68-3)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
35B. Hexachloro-cyclopentadiene (77-47-4)			X	<3.0	<2e-04	(D,E,H)				1	ug/L	lbs	NA	NA	NA
36B Hexachloro-ethane (67-72-1)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.2	<1e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.0	<2e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.3	<2e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.0	<2e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitro-sodimethylamine (62-75-9)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)			X	<3.0	<2e-04	(D,K,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.2	<1e-05	(D,F)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.3	<2e-05	(D,H)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Trichlorobenzene (120-82-1)			X	<2.0	<1e-04	(D,H)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.00707	<4e-07	(D,F)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.011	<6e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A160

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.00707	<4e-07	(D,H)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0358	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0343	<2e-06	(D,H)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.16	<9e-06	(D,H)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A160

A	Calculated using data collected between June 2017 and May 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between June 2017 and May 2018.
C	The pH values provided were determined using data collected between June 2017 and May 2018.
D	The analytical result provided is from the 2012 permit reapplication.
E	Value provided was estimated by the analytical laboratory.
F	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
G	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
H	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM 2C NPDES EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A181	35.00	51.00	51.00	106.00	18.00	5.00	Effluent Canyon, Tributary of Mortandad
							Canyon, Water Quality Segment
							20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUT-FALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A181	TA-55-6 Cooling Towers	9365 GPD	Dechlorination	2	E
	- Treated Cooling Tower Blowdown		Disinfection (other)	2	H
			Reduction	2	L

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW A. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW A. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
03A181	TA-55-6 Cooling Towers - Treated Cooling Tower Blowdown	7.0	12.0	0.009 MGD	0.032 MGD	9,365 GALLONS	31,986 GALLONS	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect yo discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules f construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
for	3-20-19

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CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	**D. DATE SIGNED**
	3-25-19

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 03A181

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	<1.00	<2.7e-1	(E)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	38.7	10.3					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	3.69	0.985					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	0.70	0.187	0.7	8.42e-2	0.700	5.47e-2	17	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.0268	7.15e-3	(D)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.0320 (A)		VALUE 0.0144 (A)		VALUE 0.0094 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 19.9 (B)		VALUE 18.6 (B)		VALUE 18.3 (B)		3	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 23.9 (B)		VALUE 22.9 (B)		VALUE 22.2 (B)		3	°C		VALUE NA		NA
i. pH	MINIMUM 7 (C)	MAXIMUM 9 (C)	MINIMUM 7.1 (C)	MAXIMUM 8.8 (C)			48	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		<0.067	<1.8e-2	(E)				1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		<0 (O)	<0	0 (O)	0	0 (O)	0	210	mg/L	lbs	NA	NA	NA
c. Color		X	<5	NA	(F)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform	X		1	NA	(K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.481	1.3e-1					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		1.42	3.8e-1					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.234	6.3e-2					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.41	<3.8e-1	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		6 (O)	1.6	6.0 (O)	7.22e-1	3.146 (O)	2.46e-1	17	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<0.772	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		4.03	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.549	NA	(E)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total		X	<0.228	NA	(E)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		69.3	18.5					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<9e-03	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		9.7	2.59	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		0.0204	5.5e-3	(D,F)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		<19.3	<5.2e-3	(H,N)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		64.4	1.7e-2	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		45	1.2e-2	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.30	<8.0e-5	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)		X	<33.0	<8.8e-3	(E)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		8230	2.2					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		2.92	7.79e-4	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	<1	<2.7e-4	(E)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<2.7e-4	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<5.3e-4	(E,N)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "**X**" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "**X**" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<3e-4	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		2.55	6.8e-4	(D)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.20	<5e-5	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.30	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		12.5	3.3e-3	(I)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		3.24	8.7e-4					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.50	<1e-4	(G)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)			X	<0.067	<2e-5	(H)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		1.88	5e-4	(D)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<5e-4	(G,N)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.600	<2e-4	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)			X	<3.30	<9e-4	(G)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		<1.67	<4e-4	(E)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS	Analytical result was <11.1 pg/L (less than the MDL). However, the MDL used was greater than the EPA MQL of 10 pg/L.										

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<4e-4	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<9e-5	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<4e-4	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<9e-5	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.00	<1e-3	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.300	<8e-5	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.90	<1e-3	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.300	<8e-5	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.410	<1e-4	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<9e-5	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.00	<8e-4	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.300	<8e-5	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.50	<9e-4	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.300	<8e-5	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.00	<8e-4	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.300	<8e-5	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.300	<8e-5	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.00	<8e-4	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.00672	<2e-6	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.0773	<2e-5	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Endosulfan (115-29-7)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0101	<3e-6	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
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CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.00672	<2e-6	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0378	<1e-5	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.152	<4e-5	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A181

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
03A199	35.00	52.00	20.00	106.00	18.00	46.00	Ephemeral Tributary Sandia Canyon in
							Water Quality Segment 20.6.4.126 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
03A199	Laboratory Data Communications	36,024 GPD	Dechlorination	2	E
	Center (LDCC)		Disinfection (other)	2	H
	- Treated Cooling Tower Blowdown		Reduction	2	L

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	4. FLOW C. DURATION (*in days*)
03A199	Laboratory Data Communications Center (LDCC) - Treated Cooling Tower Blowdown	7	12	0.036	0.074	36,024	74,000	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect you discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules fc construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS, PCB
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
[signature]	3-20-19

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
W S Goodrum	3-25-19

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 03A199

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCEN-TRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	1.82	1.12	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	37.1	22.9					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	8.84	5.46					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	4.7(A)	2.90	4.7(A)	1.79	1.51(A)	0.476	17	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.0504	0.0311					1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.074 (A)		VALUE 0.0457 (A)		VALUE 0.036 (A)		364	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 19.1 (B)		VALUE 18.6 (B)		VALUE 17.9 (B)		12	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 24.3 (B)		VALUE 23.4 (B)		VALUE 22.2 (B)		12	°C		VALUE NA		NA
i. pH	MINIMUM 7.3 (C)	MAXIMUM 8.6 (C)	MINIMUM 7.5 (C)	MAXIMUM 8.5 (C)			209	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCEN-TRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		3.75	2.32					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0.98 (I,O)	0.6052	0.98 (I,O)	0.373	0.02 (I,O)	0.006	209	mg/L	lbs	NA	NA	NA
c. Color		X	<5	NA	(E,F)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(E,K)				1	No/100mL	lbs	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.278	0.1717					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		1.4	0.8646					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.852	0.5262					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease	X		<1.51	<0.9325	(E,N)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		1.58 (O)	0.9757	1.5 (O)	0.602	0.7239 (O)	0.228	17	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<2.88	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		5.8	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total	X		0.7747	NA					1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total	X		0.740	NA					1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		25.5	15.748					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<0.0204	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		9.1	5.62	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants		X	<0.017	<0.0105	(E,F)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		<19.3	<0.0119	(H,N)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		51.7	0.0319	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		34.9	0.0216	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)		X	<33	<2e-02	(E)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		6620	4.09					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		1.85	1e-03	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		<1	<6e-04	(E,N)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<6e-04	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<1e-3	(E,N)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A199

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "**X**" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "**X**" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		<2	<1e-03	(G,N)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		7.88	5e-03	(D)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		3.15	2e-03					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)		X		<0.5	<3e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		<0.067	<4e-5	(H,N)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<4e-04	(H,N)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<1e-03	(G,N)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<4e-04	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		3.6	2e-03	(D)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		<1.67	<1e-03	(E,N)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS The result was less than the detection limit <10.3 pg/L, however, the detection limit used was greater than the MQL of 10.0 pg/L.											

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CONTINUE ON REVERSE

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<1E-03	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<1E-03	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)		X		0.85	5E-04	(D)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)		X		<0.333	<2E-04	(G,N)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<2E-04	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)		X		<0.333	<2E-04	(E,N)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)		X		<0.333	<2E-04	(E,N)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<2E-04	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<2E-04	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<2E-04	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)		X		<1.67	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloroethylene (127-18-4)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)		X		<0.333	<2e-04	(G,N,O)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloroethane (71-55-6)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloroethane (79-00-5)			X	<0.333	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloroethylene (79-01-6)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichlorofluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichlorophenol (120-83-2)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethylphenol (105-67-9)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitrophenol (51-28-5)			X	<5.05	<3e-03	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachlorophenol (87-86-5)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichlorophenol (88-05-2)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.303	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.94	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.303	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.414	<3e-04	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.03	<2e-03	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.303	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.54	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.303	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)			X	<3.03	<2e-03	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.303	<2e-04	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.303	<2e-04	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Trichlorobenzene (120-82-1)			X	<3.03	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.007	<4e-06	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.0805	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0105	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	03A199

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.007	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0354	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.158	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 03A199

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
04A022	35.00	52.00	17.00	106.00	18.00	58.00	Mortandad Canyon, Water Quality Segment 20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
04A022	Once Through Cooling Water	1,020 GPD	Dechlorination	2	E
	- Circulating Tank/Sump		Reduction	2	L
	- Air Washers				
04A022	Treated Emergency Cooling Water	1,008 GPD	Dechlorination	2	E
	- TA-3-66 Foundry		Reduction	2	L
	(NOT ROUTINE)				
04A022	Stormwater - TA3-66 Roof Drains	1,413 GPD	Declorination	2	E

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW a. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW a. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	C. DURATION (*in days*)
04A022	Once Through Cooling Water - Circulating Tank/Sump - Air Washers	7	12	0.00102 MGD	0.0144 MGD	1,020 GALLONS	14,400 GALLONS	365
	Emergency Cooling Water (not routine) - TA-3-66 Foundry	0.4	0.7	0.0010 MGD	0.028 MGD	1,008 GALLONS	28,000 GALLONS	22
	Stormwater - TA-3-66 Roof Drains	0.9	1.6	0.0014 MGD	0.007 MGD	1,413 GALLONS	6,894 GALLONS	49

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect you discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules fc construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
NA	NA	NA	NA

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
for	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)* — OUTFALL NO. 04A022

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	1.27	0.153	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	19.0	2.28	(D)				1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	<0.66	<0.0793	(E)				1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	13.4	1.61	13.4	0.475	3.631	0.0309	18	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.0343	0.00412	(D)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.0144 (A)		VALUE 0.0043 (A)		VALUE 0.001 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 16.2 (B)		VALUE 12.8 (B)		VALUE 12.1 (B)		13	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 23.1 (B)		VALUE 21.9 (B)		VALUE 20.8 (B)		13	°C		VALUE NA		NA
i. pH	MINIMUM 7	MAXIMUM 8.2	MINIMUM 7.2	MAXIMUM 8.1			191	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		<0.067	<0.008	(E)				1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0 (O)	0	0 (O)	0	0 (O)	0	41	mg/L	lbs	NA	NA	NA
c. Color	X		<5	NA	(E,N)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(E,K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.247	0.0297					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		0.215	0.0258					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.0434	0.00522	(D)				1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.44	<0.173	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		0.0294	0.00353	(E)				1	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	<1.14	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		<2.21	NA	(E,N)				1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.534	NA	(E)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total		X	<0.19	NA	(E)				1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		2.48	0.298					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<4E-03	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)		X	0	0					1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		0.0266	0.0032	(D)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)		X	<19.3	<0.0023	(H)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		64.3	0.00773	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		20.9	0.00251	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		33.2	0.00399	(D)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		2800	0.336					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		1.67	2E-04	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	<1	<1E-04	(E)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<1E-04	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<2E-04	(E,N)				1	ug/L	lbs	NA	NA	NA

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EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	04A022

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<1E-04	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		<2	<2E-04	(H,N)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<2E-05	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		3.49	4E-04	(I,D)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		5.46	7E-04					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<6E-05	(G)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)			X	<0.067	<8E-06	(H)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)			X	<0.6	<7E-05	(H)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<2E-04	(G,N)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<7E-05	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		26.5	3E-03					1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total			X	<1.67	<2E-04	(E)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS Analytical result is <11.7 pg/L (lower than the MDL). However, the MDL is greater than the EPA MQL 10 pg/L.											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<2e-4	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<4E-05	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.0	<6E-04	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUE ON REVERSE

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CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.3	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.9	<5E-04	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.3	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<2E-04	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.0	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.41	<5E-05	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.0	<4E-04	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.3	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.0	<4e-04	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (1,2,3-*cd*) Pyrene (193-39-5)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.5	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.3	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.0	<4e-04	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.3	<4E-05	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.3	<4E-05	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.0	<4E-04	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.00739	<9E-07	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.85	<1E-05	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0111	<1E-06	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	04A022

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.00739	<9E-07	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0351	<4E-06	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.167	<2E-05	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 04A022

A	Calculated using data collected between October 2017 and September 2018.
B	Summer (June, July, August) and Winter (December, January, February) temperatures were determined using data collected between October 2017 and September 2018.
C	The pH values provided were determined using data collected between October 2014 and September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
05A055	30.00	50.00	49.00	106.00	19.00	52.00	Ephemeral Tributary to Canon De Valle,
							Water Quality Segment 20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
05A055	High Explosives Wastewater Treatment	270 GPD	Slow Sand Filtration	1	V
	Facility (HEWTF)		Carbon Adsorption	2	A
	- Treated Effluent		Ion Exchange	2	J
			Evaporation	1	F

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY a. DAYS PER WEEK (*specify average*)	3. FREQUENCY b. MONTHS PER YEAR (*specify average*)	4. FLOW A. FLOW RATE (*in mgd*) 1. LONG TERM AVERAGE	4. FLOW A. FLOW RATE (*in mgd*) 2. MAXIMUM DAILY	4. FLOW B. TOTAL VOLUME (*specify with units*) 1. LONG TERM AVERAGE	4. FLOW B. TOTAL VOLUME (*specify with units*) 2. MAXIMUM DAILY	C. DURATION (*in days*)
05A055	High Explosives Wastewater Treatment Facility (HEWTF) Treatment Facility	0.1	0.1	0.0003 MGD	0.0021 MGD	270 Gallons	2,120 Gallons	4

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION a. QUANTITY PER DAY	1. AVERAGE DAILY PRODUCTION b. UNITS OF MEASURE	1. AVERAGE DAILY PRODUCTION c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	2. AFFECTED OUTFALLS (*list outfall numbers*)
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS a. NO.	2. AFFECTED OUTFALLS b. SOURCE OF DISCHARGE	3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE a. REQUIRED	4. FINAL COMPLIANCE DATE b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect you discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules fo construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Dinitrotoluene (2C-3) Styrene (2C-3 and 2C-4) Uranium (2C-3)	High Explosives Waste Treatment Facility (HEWTF) - Chemicals identified on influent Waste Stream Profile forms.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road Charleston SC 29407	(843) 556-8171	Biological Oxygen Demand, General Chemistry Pesticides, Polychlorinated Biphenyls, Radiochemistry, Semi-volatile Organic Compounds Total Metals, Total Suspended Solids, Volatile Organic Compounds
New Mexico Water Testing Laboratory, Inc.	401 North Coronado Ave Espanola, NM 87532	(505) 929-4545	E.Coli
Cape Fear Analytical LLC	3306 Kitty Hawk Road Suite 120 Wilmington, NC 28405	(910) 795-0421	TCDD (dioxin)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	D. DATE SIGNED
for	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodman, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 05A055

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	5.98	1.1e-1					1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	99.0	1.75					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	1.50	2.65e-2	(D)				1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	<0.57	<1e-2	(E)				1	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	2.27	4.02e-2	(O)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.0021 (A)		VALUE 0.0021 (A)		VALUE 0.0003 (A)		est.	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 14.5 (B)		VALUE NA		VALUE NA		est.	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 23.7 (B)		VALUE NA		VALUE NA		est.	°C		VALUE NA		NA
i. pH	MINIMUM 6.5 (C)	MAXIMUM 8.7 (C)	MINIMUM NA	MAXIMUM NA			NA	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		5.76	0.1					1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0.02	3.5e-04	(I)				1	mg/L	lbs	NA	NA	NA
c. Color		X	<5	NA	(E)				1	PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(E,K)				1	cfu/100m	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		2.87	0.051					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		29.5	0.522					1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		3.88	0.69					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease	X		<1.59	<0.028	(E,N)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		5.65	0.1					1	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total		X	0	NA	(E)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		85.9	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total	X		<0.1819	NA	(E,N)				1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total	X		<0.0759	NA	(E,N)				1	pCi/L	Na	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		987	17.46					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<6e-04	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		0	0					1	mg/L	lbs	NA	NA	NA
n. Surfactants		X	<0.017	<3e-04	(E,F)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)		X	<19.3	<0.341	(H)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		1.47	0.026	(D,I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		1510	26.7					1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)		X	<0.3	<5.3e-3	(G)				1	ug/L	lbs	NA	NA	Na
s. Iron, Total (7439-89-6)	X		66.7	1.18	(D)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)		X	<10	<0.177	(E)				1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		34.7	0.614					1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)		X	<1	<0.018	(E)				1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<0.018	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)		X	<2	<0.035	(E)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	05A055

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)		X		22.1	0.039	(I)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		22.9	0.405	(D)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)		X		0.2	0.0035	(I)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<0.005	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		1.56	0.0276	(D,I)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		11.2	0.1982					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)		X		3.49	0.0617	(D)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		0.085	0.0015	(D)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		5.26	0.0931					1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		9.25	0.1637	(D)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<0.005	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<0.011	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		49.8	0.8811					1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<3e-05	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		<1.67	<3e-05	(E,N)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS Analytical Result is <11 pg/L (less than the MDL). However, the MDL is greater than the EPA MQL OF 10 pg/L. [H]											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<3e-05	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<3e-50	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)			X	<0.33	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)			X	<0.33	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<6e-06	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<3e-05	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)			X	<0.333	<6e-06	(E,O)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)			X	<0.333	<6e-06	(E)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<6e-06	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<6e-06	(G,L)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<6e-06	(E)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<3e-05	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<6e-06	(G,O)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<6e-06	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.00	<9e-05	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.300	<5e-06	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.90	<7e-05	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.300	<5e-06	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<3e-05	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.410	<7e-06	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.00	<5e-05	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichlorobenzene (106-46-7)			X	<0.333	<6e-06	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichlorobenzidine (91-94-1)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitrotoluene (121-14-2)			X	<3.00	<5e-05	(G,O)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitrotoluene (606-20-2)			X	<3.00	<5e-05	(E,O)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.300	<5e-06	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenylhydrazine (*as Azobenzene*) (122-66-7)			X	<3.0	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachlorobenzene (118-74-1)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachlorobutadiene (87-68-3)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachlorocyclopentadiene (77-47-4)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloroethane (67-72-1)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.50	<6e-05	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.300	<5e-06	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitrosodimethylamine (62-75-9)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.0	<5E-05	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.300	<5e-06	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.300	<5e-06	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.00	<5e-05	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.0070	<1e-07	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.0805	<1e-60	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.0105	<2e-07	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
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CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.0070	<1e-07	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0732	<1e-06	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.1580	<3e-06	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 05A055

A	The flow rates provided are estimated based upon tank capacity and a maximum flow rate to the outfall of 3 gpm.
B	The temperatures provided are based upon historical data provided in the 2004 NPDES Permit Application.
C	The pH range provided are based upon historical data provided in the 2004 NPDES Permit Application and field parameter data collected in August of 2019.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
13S	35.00	51.00	8.00	106.00	16.00	33.00	Canada del Buey, Ephemeral Reach in
							Water Quality Segment 20.6.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
13S	Sanitary Wastewater (SWWS) System	228,808 GPD	Grit Removal	1	M
	Treated Effluent		Mixing	1	O
			Screening	1	T
			Sedimentation (settling)	1	U
			Dechlorination	3	E
			Disinfection (chlorine)	2	F
			Activated Sludge	3	A
			Pre-Aeration	3	B
		(sludge)	Composting	5	G
		(sludge)	Drying Beds	5	H
		(sludge)	Landfill	5	Q

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
13S	Sanitary Wastewater System (SWWS) Treated Effluent	7	12	0.0229 MGD	0.418 MGD	228,808 GALLONS	418,000 GALLONS	365

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect your discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Aniline (2C-3) Carbon Disulfide (2C-3) Cresol (2C-3) Strontium (2C-3) Styrene (2C-3) Uranium (2C-3) Vanadium (2C-3)	Sanitary Wastewater System (SWWS) Effluent. A review of the waste stream profiles associated with the water treated at the SWWS identified the 7 Form 2C-3 pollutants listed in Section V.D.1.		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

NA

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☑ NO (*go to Section VIII*)

NA

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	OC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	**D. DATE SIGNED**
[signature]	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
W. Goodrum	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 13S

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT						3. UNITS (*specify if blank*)		4. INTAKE (*optional*)		
	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Biochemical Oxygen Demand (*BOD*)	1.59	5.546	(D)				1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	67.5	235.5					1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	6.04	21.07					1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	5.08	17.72					1	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.215	0.75	(P)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.418 (A)		VALUE 0.2529 (A)		VALUE 0.229 (A)		365	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 8.0 (B)		VALUE NA		VALUE NA		0	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 25.5 (B)		VALUE NA		VALUE NA		0	°C		VALUE NA		NA
i. pH	MINIMUM 7.5 (C)	MAXIMUM 7.7 (C)	MINIMUM 7.5 (C)	MAXIMUM 7.7 (C)			2	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
a. Bromide (24959-67-9)	X		0.126	0.4395	(D)				1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		1.62 (C,P)	5.6512	1.62 (C,P)	3.419	0.985(C,P)	1.881	2	mg/L	lbs	NA	NA	NA
c. Color	X		10	NA					1	PCU	NA	NA	NA	NA
d. Fecal Coliform	X		2	(L)					1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.348	1.214					1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		0.0498	0.1737	(D)				1	mg/L	lbs	NA	NA	NA

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.991	3.457	(P)				1	mg/L	lbs	NA	NA	NA
h. Oil and Grease		X	<1.49	<5.198	(E)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		3.12	10.884	(P)				1	mg/L	lbs	NA	NA	NA
j. Radioactivity														
(1) Alpha, Total	X		<1.16		(O)				1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		13.2	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total		X	<0.487	NA					1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total		X	<0.31	NA					1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		19.3	67.326					1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<0.1151					1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		0	0	(P)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		0.0389	0.1357	(D)				1	mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)	X		21.7	0.0757	(D)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		21.8	0.0760	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		51.9	0.1810	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)	X		<0.3	<0.0010	(G,O)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		49.7	0.1734	(D)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		6570	22.92					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		1.85	0.0065	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		31.8	0.1109					1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)		X	<1	<0.0035	(E)				1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)	X		<2	<0.0070	(E,O)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	13S

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column **2a** for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1	<4e-03	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)		X		3	0.0105	(D)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<7e-04	(G)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)		X		<3	<0.011	(G,O)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		1.2	4e-03					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)		X		<0.067	<2e-04	(H,O)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		<0.6	<2e-03	(H,O)				1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)		X		<2	<7e-03	(G,O)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<2e-03	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		48.5	0.1692					1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<6e-03	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		2.21	0.0077	(D,P)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetra-chlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS Analytical Result = <11.3 pg/L (lower than the MDL) however, the MDL used is greater than EPA MQL of 10 pg/L.											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<6e-03	(G)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<6e-03	(G)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)		X		0.68	2e-03	(D,P)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)		X		4.46	2e-02	(I)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)		X		25.2	9e-02	(I)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<0.006	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)		X		20.2	7e-02	(P)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)		X		32.6	1e-01					1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<1e-03	(G,M)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)		X		<0.333	<1e-03	(G,P)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<6e-03	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)		X		<0.333	<1e-03	(G,P)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.00	<2e-02	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.00	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.00	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.00	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.00	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.3	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.9	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.3	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.0	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<0.006	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)		X		6.54	2e-02	(I)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.0	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.41	1E-03	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.0	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-6

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X	<0.333	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichloro-benzidine (91-94-1)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131 -11-3)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitro-toluene (121-14-2)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitro-toluene (606-20-2)			X	<3.0	<1e-02	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.3	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachloro-benzene (118-74-1)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachloro-butadiene (87-68-3)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachloro-cyclopentadiene (77-47-4)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloro-ethane (67-72-1)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.5	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.3	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitro-sodimethylamine (62-75-9)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitrosodiphenylamine (86-30-6)			X	<3.0	<1e-02	(N)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.3	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Trichlorobenzene (120-82-1)			X	<3.0	<1e-02	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)		X		0.0558	2e-04					1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.081	<3e-04	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.011	<4e-05	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	13S

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.007	<2e-05	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)		X		<0.0333	<1e-04	(G,K,P)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.16	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 13S

A	Calculated using data collected between October 2017 and September 2018.
B	The temperatures provided are based upon historical data provided in the 2004 NPDES Permit Application.
C	The pH range and total residual chlorine are based upon field data collected in September 2018.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	Results were obtained using the EPA Aroclor Method 608.3. PCBs are believed to be present in low concentrations based upon Waste Stream Profiles for wastewater treated at SWWS and sampling data collected by operations.
L	The E. Coli result is provided as an indicator for Fecal Coliform.
M	Result is for cis- and trans-1,3 dichloropropylene.
N	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
O	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
P	Identified as a potential pollutant from one of the sources discharging to the outfall.

Please print or type in the unshaded areas only.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
NM0890010515

Form Approved.
OMB No. 2040-0086.
Approval expires 3-31-98.

FORM **2C** NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (*list*)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (*name*)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
051	35.00	51.00	54.00	106.00	17.00	54.00	Effluent Canyon, Tributary in Mortandad
							Canyon, Water Quality Segment
							20.6.4.128 NMAC

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (*list*)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (*list*)	b. AVERAGE FLOW (*include units*)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
051	Radioactive Liquid Waste Treatment	20,000 GPD (Batch)	Evaporation	1	F
	Facility (RLWTF) Treated Effluent		Mixing	1	O
	- Treated Process Water	(18,400 GPD, 92%)	Reverse Osmosis (Hyperfiltration)	1	S
	- Treated Cooling Water	(200 GPD, 1%)	Sedimentation (Settling)	1	U
	- Treated Storm Water	(1,400 GPD, 7%)	Chemical Precipitation	2	C
			Ion Exchange	2	J
			Neutralization	2	K
			Landfill	5	Q
			Pressure Filtration	5	R
			Vacuum Filtration	5	U

OFFICIAL USE ONLY (*effluent guidelines sub-categories*)

CONTINUED FROM THE FRONT

C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☑ YES (*complete the following table*) ☐ NO (*go to Section III*)

1. OUTFALL NUMBER (*list*)	2. OPERATION(s) CONTRIBUTING FLOW (*list*)	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK (*specify average*)	b. MONTHS PER YEAR (*specify average*)	a. FLOW RATE (*in mgd*)		B. TOTAL VOLUME (*specify with units*)		C. DURATION (*in days*)
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	
051	Radioactive Liquid Waste Treatment Facility (RLWTF) Treated Effluent	4	12	0.02 MGD	0.04 MGD	20,000 GALLONS	39,840 GALLONS	208

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES (*complete Item III-B*) ☑ NO (*go to Section IV*)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (*or other measure of operation*)?

☐ YES (*complete Item III-C*) ☑ NO (*go to Section IV*)

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS (*list outfall numbers*)
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. (*specify*)	
NA	NA	NA	NA

IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operations of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES (*complete the following table*) ☑ NO (*go to Item IV-B*)

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED
NA	NA	NA	NA	NA	NA

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (*or other environmental projects which may affect yo discharges*) you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules f construction.

☒ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)
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CONTINUED FROM PAGE 2

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.
NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
Carbon Disulfide Cresol Strontium Uranium Vanadium Xylene Zirconium	Identified on a Waste Stream Profile associated with the influent treated at the RLW Treatment Facility		

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES (*list all such pollutants below*) ☑ NO (*go to Item VI-B*)

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

Whole Effluent Lethality 48-hr acute, Critical dilution 100% with a dilution series of 32%, 42%, 56%, 75%, and 100%.

Daphnia pulex, 3-hr composite

RESULTS for Sample Collected September 24, 2018: NOEC = 100%, PASS

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☑ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)
GEL Laboratories LLC	2040 Savage Road, Charleston SC 29407	(843)556-8171	VOC, SVOC, Pesticides, Metals, Radiochemistry, General Chemistry, BOD, TSS
Cape Fear Analytical LLC	3306 Kitty Hawk Road, Suite 120, Wilmington NC 28405	(910)795-0421	Dioxins and Furans
New Mexico Water Testing Laboratory Inc.	401 North Coronado Ave, Espanola, NM 87532	(505)929-4545	E-Coli
Pacific EcoRisk	2250 Cordelia Rd., Fairfield CA 94534	(707)207-7760	Whole Effluent Toxicity

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
Michael W. Hazen, Associate Laboratory Director ESHQSS	(505) 667-4218
C. SIGNATURE	**D. DATE SIGNED**
for	3-20-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

CONTINUED FROM THE FRONT

VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES (*identify the test(s) and describe their purposes below*) ☐ NO (*go to Section VIII*)

EXTRA PAGE FOR SIGNATURE ONLY

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☐ YES (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ NO (*go to Section IX*)

A. NAME	B. ADDRESS	C. TELEPHONE (*area code & no.*)	D. POLLUTANTS ANALYZED (*list*)

IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE (*type or print*)	B. PHONE NO. (*area code & no.*)
William S. Goodrum, Manager Los Alamos Field Office	(505) 667-5105
C. SIGNATURE	D. DATE SIGNED
	3-25-19

EPA Form 3510-2C (8-90) PAGE 4 of 4

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (*use the same format*) instead of completing these pages.
SEE INSTRUCTIONS.

EPA I.D. NUMBER (*copy from Item 1 of Form 1*): NM0890010515

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 051

PART A –You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	3. UNITS (*specify if blank*) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand (*BOD*)	10.2	3.39					1	mg/L	lbs	NA	NA	NA
b. Chemical Oxygen Demand (*COD*)	19	6.32	(D)				1	mg/L	lbs	NA	NA	NA
c. Total Organic Carbon (*TOC*)	<0.66	<0.219	(E)				1	mg/L	lbs	NA	NA	NA
d. Total Suspended Solids (*TSS*)	<0.57	<0.19	(E)				1	mg/L	lbs	NA	NA	NA
e. Ammonia (*as N*)	0.393	0.131	(O)				1	mg/L	lbs	NA	NA	NA
f. Flow	VALUE 0.0398 (A)		VALUE 0.02 (A)		VALUE 0.02 (A)		est.	MGD	NA	VALUE NA		NA
g. Temperature (*winter*)	VALUE 24.0 (B)		VALUE NA		VALUE NA		est.	°C		VALUE NA		NA
h. Temperature (*summer*)	VALUE 20.0 (B)		VALUE NA		VALUE NA		est.	°C		VALUE NA		NA
i. pH	MINIMUM 6.1 (C)	MAXIMUM 8.9 (C)	MINIMUM NA	MAXIMUM NA			est.	STANDARD UNITS				

PART B – Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X" a. BELIEVED PRESENT	2. MARK "X" b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (*if available*) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (*if available*) (2) MASS	c. LONG TERM AVRG. VALUE (*if available*) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (*if available*) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (*optional*) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)	X		0.0717	2.4e-02	(D)				1	mg/L	lbs	NA	NA	NA
b. Chlorine, Total Residual	X		0.4	1.3e-01	(I,O)				1	mg/L	lbs	NA	NA	NA
c. Color	X		5	NA	(F)					PCU	NA	NA	NA	NA
d. Fecal Coliform		X	<1	NA	(E,K)				1	#/100mL	NA	NA	NA	NA
e. Fluoride (16984-48-8)	X		0.201	6.7e-02	(O)				1	mg/L	lbs	NA	NA	NA
f. Nitrate-Nitrite (*as N*)	X		5.3	1.76	(O)				1	mg/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NO. (*if available*)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
g. Nitrogen, Total Organic (*as N*)	X		0.787	2.6e-01					1	mg/L	lbs	NA	NA	NA
h. Oil and Grease	X		<1.54	<0.512	(E,N)				1	mg/L	lbs	NA	NA	NA
i. Phosphorus (as P), Total (7723-14-0)	X		0.0692	2.3e-02					1	mg/L	lbs	NA	NA	Na
j. Radioactivity														
(1) Alpha, Total	X		61.4	NA					1	pCi/L	NA	NA	NA	NA
(2) Beta, Total	X		9.72	NA					1	pCi/L	NA	NA	NA	NA
(3) Radium, Total	X		2.05	NA					1	pCi/L	NA	NA	NA	NA
(4) Radium 226, Total	X		1.25	NA					1	pCi/L	NA	NA	NA	NA
k. Sulfate (*as SO_4*) (14808-79-8)	X		51.0	17.0	(O)				1	mg/L	lbs	NA	NA	NA
l. Sulfide (*as S*)		X	<0.033	<1e-02	(E)				1	mg/L	lbs	NA	NA	NA
m. Sulfite (*as SO_3*) (14265-45-3)	X		0.9	0.299	(O)				1	mg/L	lbs	NA	NA	NA
n. Surfactants	X		<0.017	<6e-03	(F,E,N)					mg/L	lbs	NA	NA	NA
o. Aluminum, Total (7429-90-5)		X	<19.3	<6e-03	(H)				1	ug/L	lbs	NA	NA	NA
p. Barium, Total (7440-39-3)	X		2.54	8.5e-04	(I)				1	ug/L	lbs	NA	NA	NA
q. Boron, Total (7440-42-8)	X		56.6	1.88e-2	(I)				1	ug/L	lbs	NA	NA	NA
r. Cobalt, Total (7440-48-4)	X		0.343	1.1e-04	(D,I)				1	ug/L	lbs	NA	NA	NA
s. Iron, Total (7439-89-6)	X		49.3	1.6e-02	(D,O)				1	ug/L	lbs	NA	NA	NA
t. Magnesium, Total (7439-95-4)	X		1660	5.5e-01					1	ug/L	lbs	NA	NA	NA
u. Molybdenum, Total (7439-98-7)	X		4.43	1.5e-03	(I)				1	ug/L	lbs	NA	NA	NA
v. Manganese, Total (7439-96-5)	X		38.1	1.3e-02					1	ug/L	lbs	NA	NA	NA
w. Tin, Total (7440-31-5)	X		16.1	5.4e-03					1	ug/L	lbs	NA	NA	NA
x. Titanium, Total (7440-32-6)		X	<2.0	<7e-04	(E)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	051

CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "**X**" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a (*secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions*), mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "**X**" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table (*all 7 pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X	<1.0	<3e-04	(G)				1	ug/L	lbs	NA	NA	NA
2M. Arsenic, Total (7440-38-2)			X	<2.0	<7e-04	(H)				1	ug/L	lbs	NA	NA	NA
3M. Beryllium, Total (7440-41-7)			X	<0.2	<7e-05	(G,O)				1	ug/L	lbs	NA	NA	NA
4M. Cadmium, Total (7440-43-9)			X	<0.3	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
5M. Chromium, Total (7440-47-3)			X	<3	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
6M. Copper, Total (7440-50-8)		X		7.35	2e-03					1	ug/L	lbs	NA	NA	NA
7M. Lead, Total (7439-92-1)			X	<0.5	<2e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
8M. Mercury, Total (7439-97-6)			X	<0.067	<2e-05	(H)				1	ug/L	lbs	NA	NA	NA
9M. Nickel, Total (7440-02-0)		X		12.2	4e-03					1	ug/L	lbs	NA	NA	NA
10M. Selenium, Total (7782-49-2)			X	<2	<7e-04	(G)				1	ug/L	lbs	NA	NA	NA
11M. Silver, Total (7440-22-4)			X	<0.3	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
12M. Thallium, Total (7440-28-0)			X	<0.6	<2e-04	(H)				1	ug/L	lbs	NA	NA	NA
13M. Zinc, Total (7440-66-6)		X		3.83	1e-03	(D,I,O)				1	ug/L	lbs	NA	NA	NA
14M. Cyanide, Total (57-12-5)			X	<1.67	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
15M. Phenols, Total		X		2.54	9e-04	(D)				1	ug/L	lbs	NA	NA	NA
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS Analytical result is <11.4 pg/L (less than the MDL). However the MDL used is greater than the EPA MQL of 10pg/L.											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Accrolein (107-02-8)			X	<1.67	<6e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
2V. Acrylonitrile (107-13-1)			X	<1.67	<6e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
3V. Benzene (71-43-2)		X		<0.333	<1e-04	(G,N,O)				1	ug/L	lbs	NA	NA	NA
4V. Bis (*Chloromethyl*) Ether (542-88-1)						(J)									
5V. Bromoform (75-25-2)		X		1.02	3e-04	(I)				1	ug/L	lbs	NA	NA	NA
6V. Carbon Tetrachloride (56-23-5)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
7V. Chlorobenzene (108-90-7)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
8V. Chlorodibromomethane (124-48-1)		X		1.02	3e-04	(I)				1	ug/L	lbs	NA	NA	NA
9V. Chloroethane (75-00-3)			X	<0.333	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
10V. 2-Chloroethylvinyl Ether (110-75-8)			X	<1.67	<6e-04	(E)				1	ug/L	lbs	NA	NA	NA
11V. Chloroform (67-66-3)		X		1.5	5e-04	(O)				1	ug/L	lbs	NA	NA	NA
12V. Dichlorobromomethane (75-27-4)		X		0.41	1e-04	(D)				1	ug/L	lbs	NA	NA	NA
13V. Dichlorodifluoromethane (75-71-8)						(J)									
14V. 1,1-Dichloroethane (75-34-3)			X	<0.333	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
15V. 1,2-Dichloroethane (107-06-2)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
16V. 1,1-Dichloroethylene (75-35-4)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
17V. 1,2-Dichloropropane (78-87-5)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
18V. 1,3-Dichloropropylene (542-75-6)			X	<0.333	<1e-04	(G,L,O)				1	ug/L	lbs	NA	NA	NA
19V. Ethylbenzene (100-41-4)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
20V. Methyl Bromide (74-83-9)			X	<0.337	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
21V. Methyl Chloride (74-87-3)			X	<0.333	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM PAGE V-4

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (*continued*)															
22V. Methylene Chloride (75-09-2)			X	<1.67	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
24V. Tetrachloro-ethylene (127-18-4)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
25V. Toluene (108-88-3)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
27V. 1,1,1-Trichloro-ethane (71-55-6)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
28V. 1,1,2-Trichloro-ethane (79-00-5)			X	<0.333	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
29V Trichloro-ethylene (79-01-6)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
30V. Trichloro-fluoromethane (75-69-4)						(J)									
31V. Vinyl Chloride (75-01-4)			X	<0.333	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
2A. 2,4-Dichloro-phenol (120-83-2)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
3A. 2,4-Dimethyl-phenol (105-67-9)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
5A. 2,4-Dinitro-phenol (51-28-5)			X	<5.00	<2e-03	(G)				1	ug/L	lbs	NA	NA	NA
6A. 2-Nitrophenol (88-75-5)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
7A. 4-Nitrophenol (100-02-7)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
8A. P-Chloro-M-Cresol (59-50-7)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
9A. Pentachloro-phenol (87-86-5)			X	<3.00	<1e-03	(G,O)				1	ug/L	lbs	NA	NA	NA
10A. Phenol (108-95-2)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
11A. 2,4,6-Trichloro-phenol (88-05-2)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
2B. Acenaphtylene (208-96-8)			X	<0.30	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
3B. Anthracene (120-12-7)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
4B. Benzidine (92-87-5)			X	<3.90	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
5B. Benzo (*a*) Anthracene (56-55-3)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
6B. Benzo (*a*) Pyrene (50-32-8)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
7B. 3,4-Benzo-fluoranthene (205-99-2)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
8B. Benzo (*ghi*) Perylene (191-24-2)			X	<0.30	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
9B. Benzo (*k*) Fluoranthene (207-08-9)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
10B. Bis (*2-Chloro-ethoxy*) Methane (111-91-1)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
11B. Bis (*2-Chloro-ethyl*) Ether (111-44-4)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
12B. Bis (*2-Chloroisopropyl*) Ether (102-80-1)			X	<1.67	<6e-04	(G)				1	ug/L	lbs	NA	NA	NA
13B. Bis (*2-Ethyl-hexyl*) Phthalate (117-81-7)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
15B. Butyl Benzyl Phthalate (85-68-7)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
16B. 2-Chloro-naphthalene (91-58-7)			X	<0.410	<1e-4	(G)				1	ug/L	lbs	NA	NA	NA
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
18B. Chrysene (218-01-9)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
19B. Dibenzo (*a,h*) Anthracene (53-70-3)			X	<0.30	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
20B. 1,2-Dichloro-benzene (95-50-1)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
21B. 1,3-Di-chloro-benzene (541-73-1)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
22B. 1,4-Dichloro-benzene (106-46-7)			X	<0.333	<1e-04	(G,O)				1	ug/L	lbs	NA	NA	NA
23B. 3,3-Dichloro-benzidine (91-94-1)			X	<3.00	<1e-03	(G,O)				1	ug/L	lbs	NA	NA	NA
24B. Diethyl Phthalate (84-66-2)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
25B. Dimethyl Phthalate (131-11-3)		X		<0.300	<1e-04	(G,N)				1	ug/L	lbs	NA	NA	NA
26B. Di-N-Butyl Phthalate (84-74-2)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
27B. 2,4-Dinitro-toluene (121-14-2)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
28B. 2,6-Dinitro-toluene (606-20-2)			X	<3.00	<1e-03	(E)				1	ug/L	lbs	NA	NA	NA
29B. Di-N-Octyl Phthalate (117-84-0)			X	<0.300	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
30B. 1,2-Diphenyl-hydrazine (*as Azo-benzene*) (122-66-7)			X	<3.0	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
31B. Fluoranthene (206-44-0)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
32B. Fluorene (86-73-7)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
33B. Hexachloro-benzene (118-74-1)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
34B. Hexachloro-butadiene (87-68-3)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
35B. Hexachloro-cyclopentadiene (77-47-4)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
36B Hexachloro-ethane (67-72-1)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
37B. Indeno (*1,2,3-cd*) Pyrene (193-39-5)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
38B. Isophorone (78-59-1)			X	<3.50	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
39B. Naphthalene (91-20-3)			X	<0.300	<1e-04	(E,O)				1	ug/L	lbs	NA	NA	NA
40B. Nitrobenzene (98-95-3)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
41B. N-Nitro-sodimethylamine (62-75-9)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (*continued*)															
43B. N-Nitro-sodiphenylamine (86-30-6)			X	<3.0	<1e-03	(G,M)				1	ug/L	lbs	NA	NA	NA
44B. Phenanthrene (85-01-8)			X	<0.300	<1e-04	(E)				1	ug/L	lbs	NA	NA	NA
45B. Pyrene (129-00-0)			X	<0.300	<1e-04	(G)				1	ug/L	lbs	NA	NA	NA
46B. 1,2,4-Tri-chlorobenzene (120-82-1)			X	<3.00	<1e-03	(G)				1	ug/L	lbs	NA	NA	NA
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
2P. α-BHC (319-84-6)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
3P. β-BHC (319-85-7)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
4P. γ-BHC (58-89-9)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
5P. δ-BHC (319-86-8)			X	<0.00739	<2e-06	(E)				1	ug/L	lbs	NA	NA	NA
6P. Chlordane (57-74-9)			X	<0.0850	<3e-05	(G)				1	ug/L	lbs	NA	NA	NA
7P. 4,4'-DDT (50-29-3)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
8P. 4,4'-DDE (72-55-9)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
9P. 4,4'-DDD (72-54-8)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
10P. Dieldrin (60-57-1)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
11P. α-Enosulfan (115-29-7)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
12P. β-Endosulfan (115-29-7)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
13P. Endosulfan Sulfate (1031-07-8)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
14P. Endrin (72-20-8)			X	<0.01110	<4e-06	(G)				1	ug/L	lbs	NA	NA	NA
15P. Endrin Aldehyde (7421-93-4)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
16P. Heptachlor (76-44-8)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA

EPA I.D. NUMBER (*copy from Item 1 of Form 1*)	OUTFALL NUMBER
NM0890010515	051

CONTINUED FROM PAGE V-8

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (*if available*)		c. LONG TERM AVRG. VALUE (*if available*)		d. NO. OF ANALYSES	a. CONCEN-TRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (*continued*)															
17P. Heptachlor Epoxide (1024-57-3)			X	<0.00739	<2e-06	(G)				1	ug/L	lbs	NA	NA	NA
18P. PCB-1242 (53469-21-9)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
19P. PCB-1254 (11097-69-1)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
20P. PCB-1221 (11104-28-2)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
21P. PCB-1232 (11141-16-5)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
22P. PCB-1248 (12672-29-6)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
23P. PCB-1260 (11096-82-5)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
24P. PCB-1016 (12674-11-2)			X	<0.0351	<1e-05	(G)				1	ug/L	lbs	NA	NA	NA
25P. Toxaphene (8001-35-2)			X	<0.1670	<6e-05	(G)				1	ug/L	lbs	NA	NA	NA

2019 NPDES Permit Reapplication - Footnotes for the Form 2C OUTFALL - 051

A	Estimated based upon the size of an effluent tank, the volume of influent received, and the total volume of effluent generated. The facility can discharge a maximum of 1 effluent tank every 4 hours (2 tanks in an 8 hour shift).
B	The temperature range provided was estimated by RLW operations based upon knowledge of process.
C	The pH range provided was estimated by RLW operations based upon knowledge of process.
D	Value provided was estimated by the analytical laboratory.
E	The analytical result provided is less than the Method Detection Limit (MDL) and there is not an approved EPA Region 6 Method Quantification Limit (MQL). The value provided is the MDL.
F	Preparation or preservation holding time was exceeded and the value provided has been estimated by the laboratory.
G	The analytical result provided is less than the MDL and the EPA Region 6 approved MQL. The value provided is the MDL.
H	The analytical result provided is less than the MDL, however, the MDL used was greater than the EPA Region 6 approved MQL. The value provided is the MDL.
I	The analytical result provided is greater than the MDL but is below the EPA Region 6 MQL.
J	The EPA has remanded this parameter. See 40 CFR Part 122, Appendix D.
K	The E. Coli result is provided as an indicator for Fecal Coliform.
L	Result is for cis- and trans-1,3 dichloropropylene.
M	The result provided is for diphenylamine due to similar mass spectra and decomposition of N-nitrosodiphenylamine in the gas chromatograph injection port to nitric oxide and diphenylamine (thus it is measured as diphenylamine).
N	The analytical data collected for the 2019 permit application indicates that the pollutant was not detected in the discharge to the outfall. The pollutant is marked as "believed present" because it was either detected or marked as "believed present" in the previous permit application submitted in 2012.
O	Identified as a potential pollutant from one of the sources discharging to the outfall.

LOS ALAMOS NATIONAL LABORATORY

Industrial and Sanitary Outfalls
2019 NPDES Permit Re-Application
Permit No. NM0028355

LA-UR-19-22215
March 2019

For:
Los Alamos National Laboratory
Los Alamos, NM

Submitted By:
U.S. Department of Energy – National Nuclear Security Administration,
Los Alamos Field Office and Triad National Security, LLC

Prepared By:
Los Alamos National Laboratory
Environmental Protection and Compliance Division
Compliance Programs Group

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VOLUME I

Section	Title
Introduction	Los Alamos National Laboratory Industrial and Sanitary Outfalls 2019 NPDES Permit Re-Application
Form 1	U.S. Environmental Protection Agency (EPA) Form 1- "General Information"
Form 2	U.S. Environmental Protection Agency (EPA) Form 2
001	Outfall 001 - Form 2C, Fact Sheet and Attachments
13S	Outfall 13S – Form 2C, Fact Sheet and Attachments
03A027	Outfall 03A027 – Form 2C, Fact Sheet and Attachments
03A048	Outfall 03A048 – Form 2C, Fact Sheet and Attachments
03A113	Outfall 03A113 – Form 2C, Fact Sheet and Attachments
03A160	Outfall 03A160 – Form 2C, Fact Sheet and Attachments
03A181	Outfall 03A181 – Form 2C, Fact Sheet and Attachments
03A199	Outfall 03A199 – Form 2C, Fact Sheet and Attachments
04A022	Outfall 04A022 – Form 2C, Fact Sheet and Attachments
051	Outfall 051 – Form 2C, Fact Sheet and Attachments
05A055	Outfall 05A055 – Form 2C, Fact Sheet and Attachments

VOLUME II

Appendix	Title
A	List of Environmental Permits at the Los Alamos National Laboratory
B	Hazardous Waste Management Facility Maps
C	Map 1 - Los Alamos National Laboratory Technical Area Map
D	Map 2 - Sanitary Sewer and Storm Drain Systems and National Pollutant Discharge Elimination System (NPDES) Outfall Locations
E	Map 3 – Location Map of Water Supply Wells, Monitoring Wells, Springs, and Other Surface Water Bodies
F	Signature Authority Letter
G	Historical and Existing National Pollutant Discharge Elimination System (NPDES) Outfall Status Summary
H	Notice of Changed Conditions and/or Planned Changes (March 2012 – February 2019)
I	LA-UR-18-20700, EP2018-0036, Surface Water Data at Los Alamos National Laboratory, Water Year 2014
J	2017 Drinking Water Quality Data Report
K	Executive Summary of the Los Alamos National Laboratory's National Pollutant Discharge Elimination System (NPDES) Permit Re-Application Implementation Plan
L	Sampling and Analysis Plan for Los Alamos National Laboratory's National Pollutant Discharge Elimination System (NPDES) Permit Re-Application
M	State of New Mexico Classified Stream Segments, 20.6.4 NMAC

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2	Existing Permitted NPDES Outfalls
3	List of Outfalls Included in the Permit Re-Application Package

ACRONYMS/ABBREVIATIONS

CWA	Clean Water Act
DOE	U.S. Department of Energy
EA	Environmental Assessment
ENV-DO	Environmental Protection Division
EPA	Environmental Protection Agency
EPC-CP	Environmental Protection and Compliance – Compliance Programs
ESHQSS	Environment, Safety, Health & Quality, and Safeguards & Security
˚F	Fahrenheit
ft	feet/foot
HEWTF	High Explosives Wastewater Treatment Facility
IPSP	Industrial Point Source Permit
IWD	Integrated Work Document
LANL	Los Alamos National Laboratory
LDCC	Laboratory Data Communications Center
NEPA	National Environmental Policy Act
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NNSA	National Nuclear Security Administration
NPDES	National Pollutant Discharge Elimination System
QA	quality assurance
RCRA	Resource Conservation and Recovery Act
RLWTF	Radioactive Liquid Waste Treatment Facility
SAP	Sampling and Analysis Plan
SMO	Sample Management Office
SWEIS	Site Wide Environmental Impact Statement
SWWS	Sanitary Waste Water System
TA	Technical Area
WAC	Waste Acceptance Criteria
WCATS	Waste Compliance and Tracking System
WSP	Waste Stream Profile

EXECUTIVE SUMMARY

The Los Alamos National Laboratory (Laboratory) must apply for renewal of the existing Industrial and Sanitary Point-Source National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 issued by the U.S. Environmental Protection Agency (EPA) under the requirements specified in the Clean Water Act Section 402 and Code of Federal Regulations, Title 40, Section 122. The existing permit expires on September 30, 2019. The NPDES permit and regulations require the Laboratory to submit a re-application 180 days prior to the expiration of the existing permit, April 4, 2019. The attached document, forms, Appendices, and Attachments constitute the Laboratory's permit reapplication for the following eleven (11) outfalls:

- 001 - Power Plant
- 13S - Sanitary Waste Water System Facility
- 03A027 - Treated Cooling Water
- 03A048 - Treated Cooling Water
- 03A113 - Treated Cooling Water
- 03A160 - Treated Cooling Water
- 03A181 - Treated Cooling Water
- 03A199 - Treated Cooling Water
- 04A022 - Once Through Cooling Water and Roof Drains
- 051 - Radioactive Liquid Waste Treatment Facility Effluent
- 05A055 - High Explosives Wastewater Treatment Facility Effluent

The Laboratory is categorized as an industrial or commercial facility that is renewing an existing NPDES permit with no new outfalls. This categorization requires that the permit reapplication include an EPA Form 1 and EPA Form 2C. This 2019 Permit Re-Application includes a Form 1 that provides general information such as the nature of business, name, mailing address, location, and other existing permits that apply to Laboratory operations. It also includes a Form 2C and fact sheet for each outfall. The Form 2C, fact sheet, and the fact sheet attachments provide detailed information regarding the location of the outfall, sources of influent water, production levels, and the analytical data for potential contaminants in the effluent discharged from the outfall.

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LOS ALAMOS NATIONAL LABORATORY INDUSTRIAL AND SANITARY OUTFALLS 2019 NPDES PERMIT RE-APPLICATION

The current Los Alamos National Laboratory (LANL or Laboratory), National Pollutant Discharge Elimination System (NPDES) Industrial and Sanitary Discharge Permit No. NM0028355 will expire September 30, 2019. The NPDES permit and regulations require the Permittees to submit a re-application to the U.S. Environmental Protection Agency (EPA) 180 days prior to the expiration of the existing permit, April 4, 2019. This document serves as the 2019 NPDES Permit Re-Application package for the renewal of NPDES Permit No. NM0028355 submitted to the EPA by the U.S. Department of Energy (DOE) – National Nuclear Security Administration (NNSA) and the Triad National Security, LLC. The DOE/NNSA and Triad are hereinafter referred to as the "co-permittees or permittees."

This 2019 NPDES Permit Re-Application package has been prepared and is submitted in accordance with the provisions of the Clean Water Act (CWA) (33 U.S.C. 1251 – 1387) and the NPDES Permit Program requirements provided in 40 CFR 122.21. It is the intent of the package to provide the EPA and permit writer, New Mexico Environment Department, and others with adequate background information concerning each outfall, the surrounding environmental conditions, and associated future activities at the Laboratory to promote review of the technical data and preparation of the permit. The Permittees would like to invite EPA and New Mexico Environment Department (NMED) representatives to visit the Laboratory during the review process to gain firsthand knowledge and understanding of the information provided, identify potential issues, and answer any questions regarding proposed changes to the permitted outfalls and NPDES facilities presented in this re-application package.

Due to the complex nature of the NPDES Permit Re-Application and potential need for supplemental information, the applicant requests that all previous applications, modifications, maps, data, and pertinent correspondence submitted in reference to NPDES Permit No. NM0028355 transmitted to the EPA up to the time the new permit is issued, be considered part of this re-application. The applicant will continue to provide copies of all such information to the EPA Permit Writer as new information becomes available.

1.0 NPDES PERMIT RE-APPLICATION

The 2019 NPDES Permit Re-Application requires that detailed information be provided for each point source outfall. The information required includes the location of each outfall; a detailed description of all sources and processes that contribute to each outfall discharge; the volume and frequency of the discharges; and analytical data for the discharges. The Laboratory is categorized as an industrial or commercial facility that is renewing an existing NPDES permit with no new outfalls. This categorization requires that the permit reapplication include an EPA Form 1 and EPA Form 2C. This application is organized into two volumes. Volume I includes an introduction and a set of alphabetically organized (A through L) appendices that provide the maps required by the Form 1 and other supplemental information to support the application. Volume II provides the Form 1 and an application package that consists of the Form 2C and fact sheet for each individual outfall.

1.1 General Form 1

The Form 1 is used to present general information such as the nature of business, name, mailing address, location, and other existing permits that apply to Laboratory operations. This permit application includes a section that is labeled Form 1 in Volume I. This section provides the completed Form 1 with its associated footnotes and applicable certifications. The following Appendices (located in Volume II) provide details regarding the Laboratory's existing environmental permits and the maps requested in Form 1 Section X and XI, respectively:

- Appendix A - A list of other environmental permits that are applicable to Laboratory Operations
- Appendix B - Topographic maps of each hazardous waste treatment, storage, and/or disposal unit.
- Appendix C - Topographic map of the LANL technical areas (TA) and Boundaries

- Appendix D - A Topographic map of all springs, rivers, and other surface water bodies
- Appendix E - A Topographic Map of the area extending to at least one mile beyond the property boundaries that shows the outline of the facility and the location of each outfall. Detailed location maps for each intake and discharge structures are provided with each outfall Form 2C and Fact Sheet.

1.2 Form 2C

The Form 2C is used to provide detailed information regarding the location of the outfall, sources of influent water, production levels, and the analytical data for potential contaminants in the effluent discharged from the outfall. The Form 2C for each outfall is provided in Volume I as a section that corresponds to the respective outfall ID number (e.g., 001, 03A048, 051). In addition to the Form 2C, each outfall section includes a fact sheet that is intended to demonstrate compliance with the Form 2C requirements. The fact sheets provide additional detail and the supporting documentation that is requested by form for each outfall. Supporting documentation includes location maps, process schematics, water balances, photographs, a Discharge Monitoring Report Summary, and chemical safety data sheets, as applicable to each outfall. This permit application provides a Form 2C and fact sheet for the following eleven (11) outfalls:

- 001 - Power Plant
- 13S - Sanitary Waste Water System (SWWS) Facility
- 03A027 - Treated Cooling Water
- 03A048 - Treated Cooling Water
- 03A113 - Treated Cooling Water
- 03A160 - Treated Cooling Water
- 03A181 - Treated Cooling Water
- 03A199 - Treated Cooling Water
- 04A022 - Once Through Cooling Water and Roof Drains
- 051 - Radioactive Liquid Waste Treatment Facility (RLWTF) Effluent
- 05A055 - High Explosives Wastewater Treatment Facility (HEWTF) Effluent

2.0 BACKGROUND

2.1 Laboratory Organization

The Laboratory is currently operated by Triad National Security, LLC on behalf of the U.S. Department of Energy (DOE) and thus is a co-permittee of the NPDES Permit. As co-permittee, Traid is responsible for Laboratory site compliance with the regulatory requirements of the NPDES permit and all other environmental permits granted to the Laboratory. The Environment, Safety, Health & Quality, and Safeguards & Security (ESHQSS) Directorate, Environmental Protection and Compliance (EPC-DO) provides environmental protection leadership, service, and support to meet the Laboratory's environmental protection obligations and public assurance needs. The Triad senior management has delegated the authority and responsibility to the Associate Laboratory Director of ESHQSS and/or Division Leader of the EPC-DO to act as the certifying official for environmental compliance permit applications. The Associate Laboratory Director of ESHQSS will be a signatory on the 2019 NPDES Permit Re-Application as designated by the letter provided in Appendix F.

2.2 Laboratory Research Activities

The Laboratory is a complex organization comprised of multiple disciplines and programs that include stockpile stewardship and extensive basic research in physics, chemistry, metallurgy, mathematics, computers, earth sciences, and electronics. Its current mission is to solve national security challenges through scientific excellence. The current goals of the Laboratory are to deliver national nuclear security and broader global security mission solutions and to foster excellence in science and engineering disciplines essential for national

security missions by attracting, inspiring, and developing world-class talent to ensure a vital future workplace and by enabling mission delivery through next-generation facilities, infrastructure, and operational excellence.

2.3 NPDES Permit NM0028355

The Laboratory has had an approved NPDES Permit since 1978. Table 1 summarizes the permit activities associated over the last 41 years. Appendix G provides a list of all historical and existing outfalls.

Table 1
Historical Summary of NPDES Permit NM0028355

Application		NPDES Permit		Outfalls Eliminated and/or Removed
Date	No. Outfalls	Effective Date	No. Outfalls	
Prior to 1990	141	NA	NA	• 24 outfalls eliminated prior to the effective date of the first permit.
1990	117	9/1/2003	34	• 83 outfalls were eliminated due to the completion of the Waste Stream Characterization and Corrections Project and the Outfall Reduction Project.
1998	35	2/1/2001	21	• 14 outfalls were not permitted because the supply wells associated with them were transferred from U.S. Department of Energy to Los Alamos County before the permit was issued. • Request made to EPA to delete 4 outfalls (03A024, 03A047, 03A049, and 05A097) in August of 2004 because they were no longer in use.
2004	17	8/1/2007	15	• 03A158 was not permitted because the TA-21-209 cooling tower was decommissioned and the outfall eliminated before the permit was issued. • 03A028 was not permitted because the TA-15-185 and TA-15-202 Phermex facilities were decommissioned before the permit was issued. • 03A021 and 03A185 were tied to the Sanitary Waste Water System (SWWS) Plant in 2010 as part of the Outfall Reduction Project. Outfalls 02A129 (TA-21 Steam Plant) and 03A130 (TA-11 cooling tower) no longer discharge to the environment.
2012	11	10/1/2014	11	• Permitted 11 outfalls.
2015	11	5/1/2015	11	• Permit Modification to change the maximum and monthly average temperature limits. • Revised the designation of outfall 03A022 to a 04A022.

The existing NPDES Industrial and Sanitary Discharge Permit No. NM0028355 became effective on October 1, 2014 with final modifications implemented May 2015 (LA-UR-15-23948). This permit includes 11 outfalls located at seven (7) Technical Areas (TAs) spread out over an approximately 36 square mile area within the Laboratory boundaries (Table 2).

Table 2
Existing Permitted NPDES Outfalls

Outfall Category	Number of Outfalls	Designation
Power Plant (001)	1	001
Sanitary Wastewater System Facility (13S)	1	13S
Radioactive Liquid Waste Treatment Facility (051)	1	051
Treated Cooling Water (03A)	6	03A027
		03A048
		03A113
		03A160
		03A181
		03A199
Non-Contact Cooling Water, Storm Water, and Roof Drain Water (04A)	1	04A022
High Explosive Wastewater Treatment Facility (05A)	1	05A055

The permit requires weekly, monthly, quarterly, yearly, and term sampling to demonstrate compliance with different outfall specific effluent quality limits. The existing permit requires the Permittees to give notice to the EPA of any planned physical alterations or additions that could significantly change the nature or increase the quantity and/or quality of pollutants discharged from any of its permitted outfalls. The existing permit includes 14 Notices of Changed Condition/Planned Change. Appendix H provides a copy of each Notice of Changed Condition/Planned Change that was submitted to the EPA from March 2012 through February 2019.

2.4 NEPA Considerations

A National Environmental Policy Act (NEPA) categorical exclusion for the Waste Stream Corrections Project was issued by DOE in January 1996 and an *Environmental Assessment (EA) for Effluent Reduction* was completed by the LANL in September 1996. This categorical exclusion and EA support the reduction/elimination of the discharges from all of the LANL outfalls except the following:

- Outfall 001, TA-3 Power Plant
- Outfall 05A055, TA-16 HEWTF
- Outfall 13S, TA-46 SWWS
- Outfall 051, TA-50 Radioactive Liquid Waste Treatment Facility
- Outfall 03A199, Laboratory Data Communications Center (LDCC) Cooling Tower

The TA-16 HEWTF (Outfall 05A055) was analyzed under a separate evaluation which provided a NEPA determination that the project was determined to be covered under an existing DOE-approved categorical exclusion for Safety and Environmental Improvements at LANL. The outfall reduction project for RLWTF (Outfall 051) was included as an option in the Final Site-Wide Environmental Impact Statement (SWEIS) for Continued Operation of Los Alamos National Laboratory (DOE 2008a). In September 2008, the National Nuclear Security Administration (NNSA) issued the first Record of Decision for the 2008 SWEIS (DOE 2008b). The NNSA chose to implement the No Action Alternative with the addition of some element of the Expanded Operations Alternative. Final design of a new RLWTF was a part of the Expanded Operations Alternative that were approved to move forward. Mitigation commitments associated with this project are included in the Mitigation Action Plan for the 2008 SWEIS.

In 2008, a Permit Requirements Identification request was submitted for the proposed actions reducing or eliminating discharges from the LDCC Cooling Tower (Outfall 03A199); TA-46 SWWS (13S); and the TA-3 Power Plant (Outfall 001). In August 2010, an EA for the Expansion of the Sanitary Effluent Recycling Facility and Environmental Restoration of Reach S-2 of Sandia Canyon at LANL and associated Finding of No Significant

Impacts was issued by the NNSA. The NNSA determined that by using adaptive management practices in the implementation of specific resource mitigation commitments, the potential for adverse environmental effects from the proposed actions would be minimal.

2.5 Other Environmental Permits

The Laboratory operations are regulated under various state and federal environmental regulations (e.g., Clean Air Act, CWA, etc.) through operating permits. These documents are designed by the regulatory agencies to allow Laboratory operations to be conducted while assuring that the public, air, land, soils, water, and biota are protected. Appendix A provides a detailed list of the environmental permits at LANL includes issuing dates, revision dates, expiration date, and the administering agency.

3.0 ENVIRONMENTAL SETTING

3.1 Location

The Laboratory and the associated residential and commercial areas of Los Alamos and White Rock are located in Los Alamos County, in north-central New Mexico, approximately 60 miles north-northeast of Albuquerque and 25 miles northwest of Santa Fe as shown on Figure 1. The Laboratory currently encompasses about 36 square miles and is situated on the Pajarito Plateau, a series of finger-like mesas and canyons at the eastern edge of the Jemez Mountains, bordered on the east by White Rock Canyon and the Rio Grande. Mesa tops range in elevation from approximately 7,800 feet (ft) on the flanks of the Jemez Mountains to about 6,200 ft at the edge of White Rock Canyon. Most Laboratory and community developments are confined to the mesa tops.

The land surrounding the Laboratory is largely undeveloped and large tracts of land north, west, and south of the Laboratory site are held by the Santa Fe National Forest, the U.S. Bureau of Land Management, Bandelier National Monument, the U.S. General Services Administration, and Los Alamos County. The Pueblo de San Ildefonso borders the Laboratory to the east. Santa Clara Pueblo is north of the Laboratory but does not share a border. The Laboratory is divided into 49 TAs, which are defined areas that may contain building sites, experimental areas, support facilities, roads, and utility rights-of-way (Appendix C).

3.2 Climate

The Los Alamos area has a semiarid mountain climate where more water is lost through evaporation and transpiration than is received as annual precipitation. Annual temperatures and amounts of precipitation vary across the site because of the 1,000-ft elevation change and the complex topography. Four distinct seasons occur in Los Alamos County. Winters are generally mild, with occasional winter storms. Spring is the windiest season. Summer is the rainy season, with frequent afternoon thunderstorms. Fall is typically dry, cool, and calm. Daily temperatures are highly variable. On average, winter temperatures range from 30˚F to 50˚F during the daytime and from 15 degrees Fahrenheit (˚F) to 25˚F during the nighttime. The Sangre de Cristo Mountains to the east of the Rio Grande act as a barrier to wintertime arctic air masses, making the occurrence of local subzero temperatures rare. On average, summer temperatures range from 70˚F to 88˚F during the daytime and from 50˚F to 59˚F during the night. From 1981 to 2010, the average annual precipitation (which includes both rain and the water equivalent of frozen precipitation) was 19 inches and the average annual snowfall amount was 59 inches. The rainy season begins in early July and ends in early September. Afternoon thunderstorms form as moist air from the Pacific Ocean and the Gulf of Mexico lifts over the Jemez Mountains. Thunderstorms yield short, heavy downpours and an abundance of lightning. Local lightning density, among the highest in the United States, is estimated at 15 strikes per square mile per year.

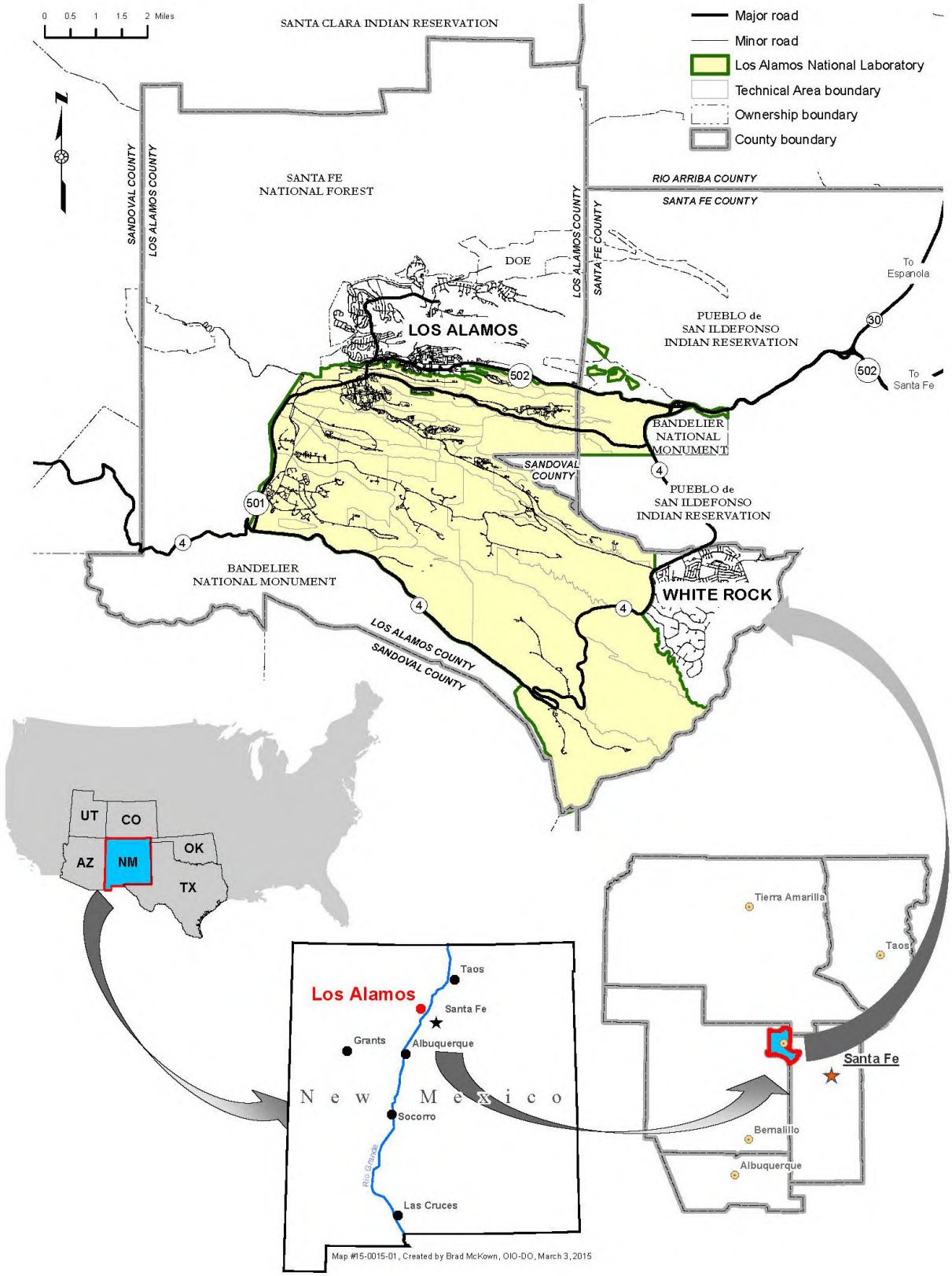

Figure 1 - Location of Los Alamos National Laboratory

3.3 Geology

The Laboratory is located in Northern New Mexico on the Pajarito Plateau (Figure 2). The Pajarito Plateau extends from the Rio Grande in the east to the Sierra de los Valles range of Jemez Mountains in the west. Rocks that compose Bandelier Tuff cap the Pajarito Plateau. The tuff was formed from ash and other volcanic materials that erupted from the Jemez Mountains volcanic center approximately 1.2 to 1.6 million years ago. The tuff is more than 1,000 ft thick in the western part of the plateau and thins to about 260 ft next to the Rio Grande.

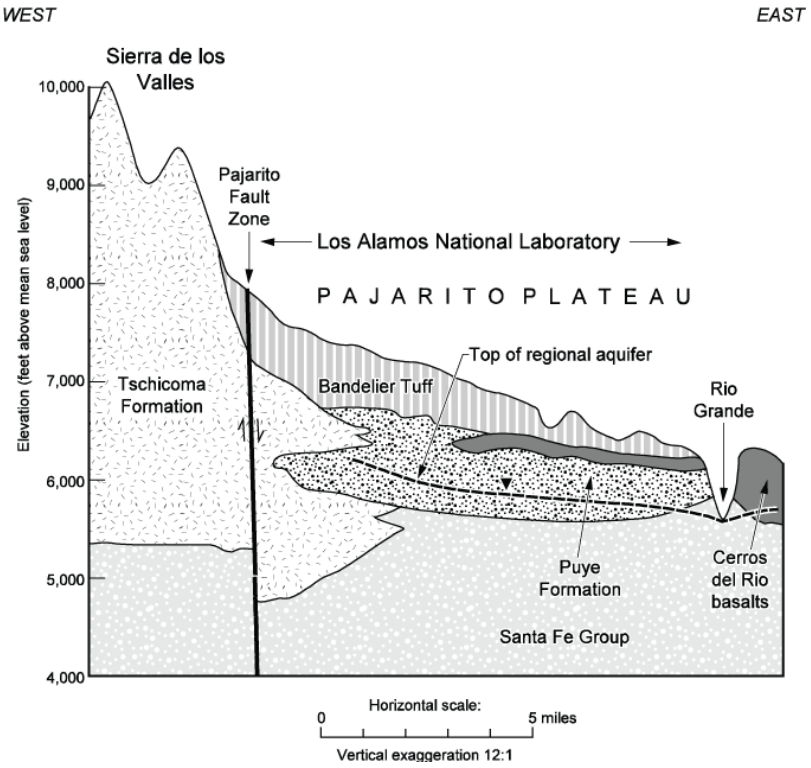

Figure 2 - Generalized Cross-Section of the Los Alamos National Laboratory Area

On the western part of the Pajarito Plateau, the Bandelier Tuff overlaps the Tschicoma Formation, which consists of older volcanic deposits. The Puye Formation, a largely unconsolidated sedimentary conglomerate, underlies the tuff beneath the central and eastern portion of the plateau. The Cerros del Rio basalt flows, which originated mostly from a volcanic center east of the Rio Grande, extend into the Puye Formation beneath the Laboratory. These formations all overlie the sediments of the Santa Fe Group, which cross the Rio Grande valley and are more than 3300 ft thick.

3.4 Hydrology

3.4.1 Surface Water

The Laboratory property contains all or parts of seven primary watersheds that drain directly into the Rio Grande. Listed from north to south, the major canyons for these watersheds are Los Alamos, Sandia, Mortandad, Pajarito, Water, Ancho, and Chaquehui as shown on Figure 3. Each of these watersheds includes tributary canyons of various sizes. Los Alamos, Pajarito, and Water Canyons have their headwaters west of the Laboratory in the eastern Jemez Mountains, mostly within the Santa Fe National Forest. The remainder the primary watersheds have their headwaters on the Pajarito Plateau. Only the Ancho Canyon watershed is entirely located on Laboratory land.

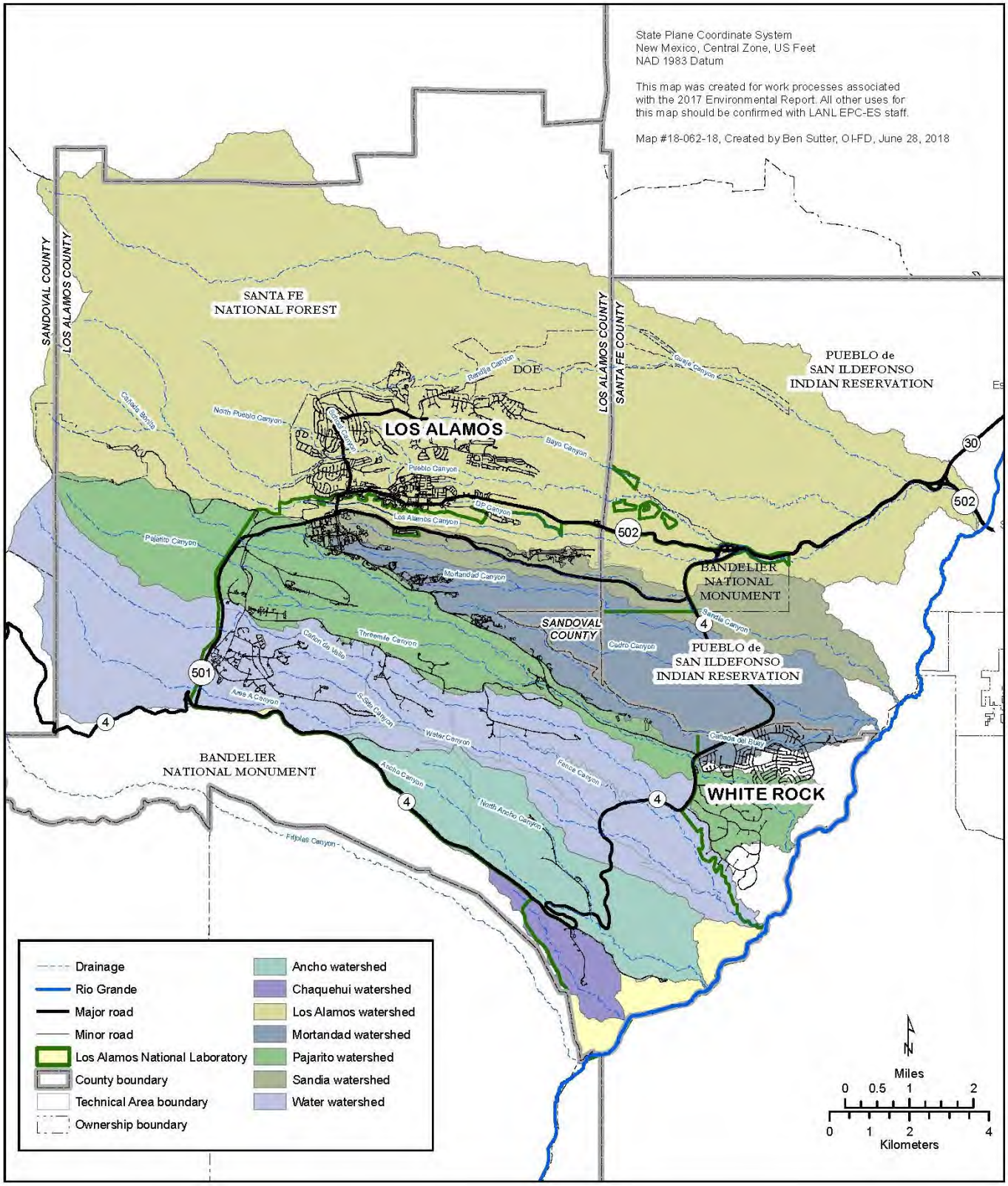

Figure 3 - Primary Watersheds at Los Alamos National Laboratory

Surface water in the Los Alamos region occurs primarily as ephemeral flow, which is associated with individual storms and lasting only a few hours to days, or intermittent flow, which is associated with events like snow melt and lasts only a few days to weeks. Springs on the edge of the Jemez Mountains that flow year-round do supply continuous water into western sections of some canyons on Laboratory property, but the amount of water is not enough to maintain surface flows to the eastern Laboratory boundary.

Except during major runoff events, the cumulative flow of wastewater discharges do not reach the Rio Grande. The intermittent runoff leaving Laboratory property is measured at gage stations located in each watershed. These flow measurements are periodically published in the Watershed Periodic Monitoring Reports or in reports for a given water year. Appendix I provides the most recent Surface Water Data report for Water Year 2014. Appendix E provides a scaled full size map showing the location of the springs/base flow associated with each watershed and the locations of the outfalls associated with this re-application document.

3.4.2 Groundwater

The Laboratory is located on top of a thick zone of mainly unsaturated rock and sediments, with the primary aquifer found 600 - 1,200 ft below the ground surface. Groundwater occurs beneath the Pajarito Plateau in three modes: (1) perched alluvial groundwater in canyon bottoms; (2) zones of intermediate-depth perched groundwater whose location is controlled by availability of recharge and by subsurface changes in permeability; and (3) the regional aquifer beneath the Pajarito Plateau as shown on Figure 4.

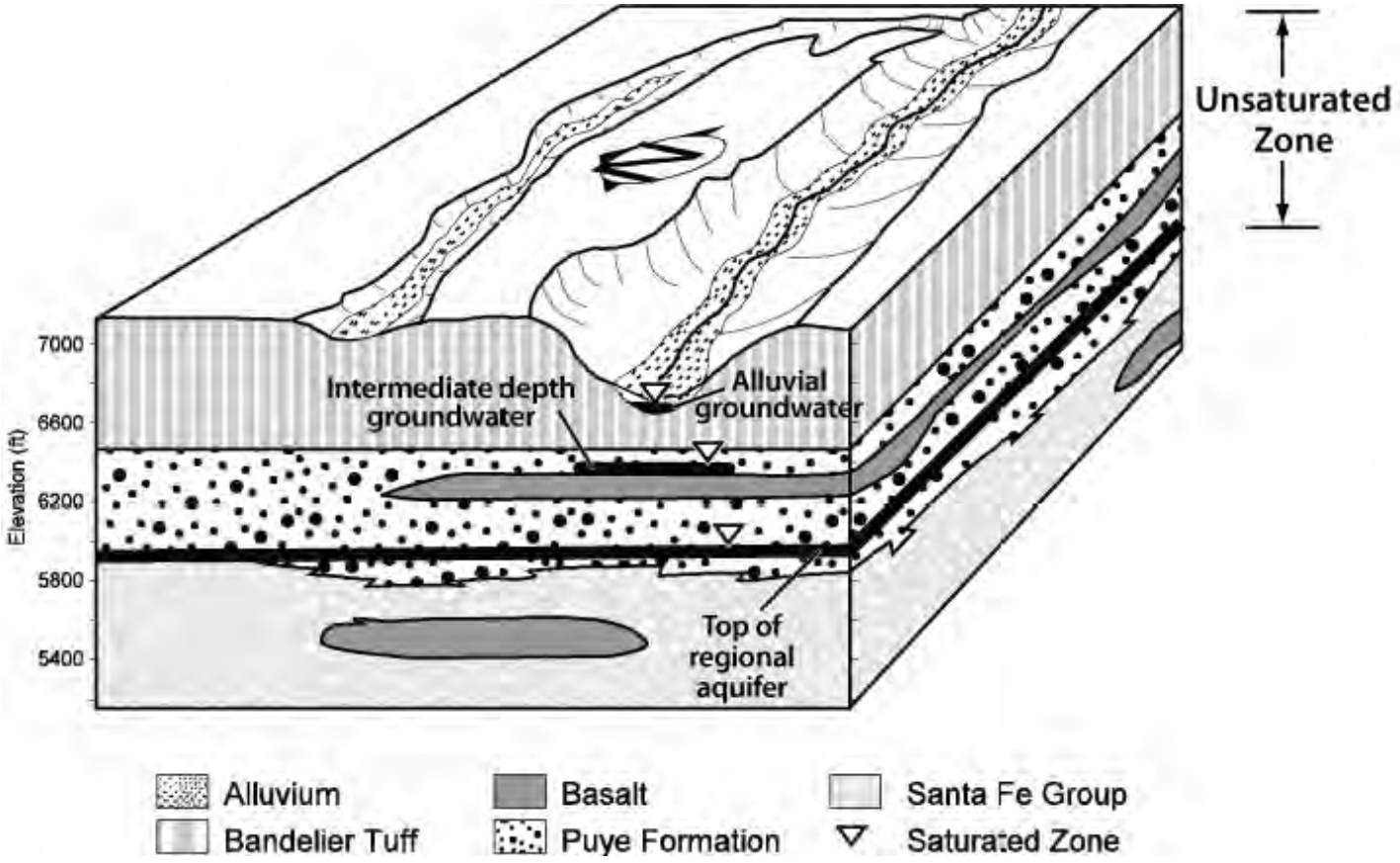

Figure 4 – Illustration of Geological and Hydrological Relationships on the Pajarito Plateau

Perched alluvial groundwater is a limited area of saturated rocks and sediments directly below canyon bottoms. Surface water percolates through the alluvium until downward flow is disrupted by less permeable layers of rock, resulting in shallow perched bodies of groundwater. Most of the canyons on the Pajarito Plateau have infrequent surface water flow and, therefore, little or no alluvial groundwater. A few canyons have saturated alluvium in their western ends supported by runoff from the Jemez Mountains. In some locations, surface water is supplemented or maintained by discharges from Laboratory outfalls. As alluvial groundwater moves down a canyon, it either evaporates, is used by plants, or percolates into underlying rock.

Perched-intermediate groundwater occurs within the lower part of the Bandelier Tuff and the underlying Puye Formation and Cerros del Rio basalt underneath some canyons (Figure 4). These intermediate-depth groundwater bodies are formed in part by water moving downward from alluvial groundwater until the water reaches a layer of relatively impermeable rock. Depths of the perched-intermediate groundwater zones vary. For example, the depth to perched-intermediate groundwater is approximately 120 ft beneath Pueblo Canyon, 450 ft beneath Sandia Canyon, and 500 to 750 ft beneath Mortandad Canyon.

The uppermost level of water in the regional aquifer (known as the water table) occurs at a depth of approximately 1,200 ft below ground surface along the western edge of the plateau and 600 ft below ground surface along the eastern edge. Studies indicate that water from the Sierra de los Valles is the main source of recharge for the regional aquifer (LANL 2005). Groundwater in the regional aquifer generally flows east or southeast. The speed of groundwater flow varies but is typically around 30 ft per year. The regional aquifer is separated from alluvial and perched-intermediate groundwater by layers of unsaturated tuff, basalt, and sediment with generally low moisture content (<10 percent). The limited extent of the alluvial and intermediate groundwater bodies, along with unsaturated rock that underlies them, restricts their contribution to recharging the regional aquifer, although locally they are important parts of the complete pathway to the regional aquifer.

The Laboratory uses groundwater for its potable water supply to laboratory facilities, sanitary facilities, and operations support facilities (cooling towers, power plant etc.). This groundwater contains various levels of natural elements that are dissolved as the water passes through the sub-surface geology. Appendix J provides the sampling results for well water as collected by the Los Alamos County Safe Drinking Water Act Sampling Program for 2017.

3.5 Soil Conditions

Most of the Laboratory facilities are located on mesa tops, where the soils are generally well-drained and thin. The parent materials are approximately 95% Bandelier Tuff, volcanic rocks of the Tschicoma and Puye Formations, and the Cerros de Rio Basalts of the Chino Mesa, and the remnants of the El Cajete pumice. The remaining 5% was formed from colluviums, alluvium, andesitic rocks of the Paliza Canyon Formation, Cerro Rubio Quartz Latites, and tuffs associated with the sediments of the Cerro Toledo Rhyolite. The textures of the these soils range from very fine sandy loams and clay loams to gravelly, sandy loams and stony, silty clay loams.

4.0 OUTFALL DESCRIPTIONS AND CLASSIFICATIONS

This 2019 NPDES Permit Application Package includes documentation for 11 industrial and sanitary outfalls as shown in Table 3 and the map provided as Appendix D. These outfalls discharge into 4 of the watersheds in the LANL region, with the amount of discharge varying from year to year. Detailed treatment descriptions and future proposed changes to NPDES permitted facilities and outfalls are found in the EPA Form 2C Applications and Fact Sheets for each outfall.

Table 3
List of Outfalls Included in the Permit Application Package

Outfall ID No.	Location	Receiving Stream [a]	Watershed
001	TA-3	Perennial Reach of Sandia Canyon, Water Quality Segment 20.6.4.126 NMAC	Sandia
13S	TA-46	Canada del Buey, Water Quality Segment 20.6.4.128 NMAC	Canada del Buey [b]
03A027	TA-3	Perennial Reach of Sandia Canyon. Water Quality Segment 20.6.4.126 NMAC	Sandia
03A048	TA-53	Ephemeral Tributary to Los Alamos Canyon, Water Quality Segment Number 20.6.4.128 NMAC	Los Alamos
03A113	TA-53	Ephemeral Reach of Sandia Canyon, Water Quality Segment 20.6.4.126 NMAC	Sandia
03A160	TA-35	Ten Site Canyon, Tributary to Mortandad Canyon, Water Quality Segment Number 20.6.4.128 NMAC	Mortandad
03A181	TA-55	Effluent Canyon, Ephemeral Reach of Mortandad Canyon, Water Quality Segment Number 20.6.4.128 NMAC	Mortandad
03A199	TA-3	Ephemeral Tributary to Upper Sandia Canyon Water Quality Segment 20.6.4.126 NMAC	Sandia
04A022	TA-3	Ephemeral Reach of Mortandad Canyon, Water Quality Segment Number 20.6.4.128 NMAC	Mortandad
051	TA-50	Effluent Canyon, Ephemeral Reach of Mortandad Canyon, Water Quality Segment Number 20.6.4.128 NMAC	Mortandad
05A055	TA-16	Ephemeral Tributary to Canon De Valle, Water Quality Segment Number 20.6.4.128 NMAC	Water/CdV

a. See Appendix M for a map showing the New Mexico Water Quality Stream Segments.
b. Treated effluent from Outfall 13S is pumped to the TA-3 Re-Use tank and discharged to Outfall 001. To date, the TA-46 SWWS Plant has never discharged into Canada del Buey. Canada del Buey is a tributary to Mortandad Canyon.

NMAC = New Mexico Administrative Code

5.0 WASTE ACCEPTANCE, CHARACTERIZATION, AND CERTIFICATION

The Laboratory's waste management requirements are consistent with the applicable DOE orders, and state and federal regulations. All waste generators at the Laboratory are required to properly identify and document the characterization of any solid, hazardous, radioactive, or mixed waste pursuant to P409, *Waste Management* and the waste acceptance criteria (WAC) provided in P409-1, LANL Waste Acceptance Criteria and PA-AP-01039, *Waste Acceptance Criteria for Transuranic Radioactive Liquid Waste*. The WAC for the wastewater treatment facilities that may discharge to an NPDES permitted outfall are based on the NPDES effluent limits, New Mexico Water Quality Standards, Resource Conservation and Recovery Act Universal Treatment Standards, and/or other federal and state requirements. The treatment processes and capacities of these facilities are also considered during the development of the WAC.

The Laboratory utilizes the waste stream profile (WSP) to provide a complete and concise description of each waste stream including the details of the generating process. The WSP process provides generators with guidance to help make the determination of the physical, chemical, and radiological characteristics of the waste with sufficient accuracy to permit proper segregation, treatment, and disposal appropriate facility WAC. A WSP is required for all waste streams to be discharged or transported to the SWWS, RLWTF, and/or the HEWTF. The WSPs are typically prepared by the generator with the assistance of a Waste Management Coordinator who then enters the information into the Waste Compliance and Tracking System (WCATS). The WCATS system automatically routes the WSP for approval by the appropriate organizations/personnel and allows for the generator to attach characterization data, acceptable knowledge data and other information necessary to properly document the waste stream.

6.0 2019 NPDES RE-APPLICATION PROJECT

The data and information used to prepare this 2019 NPDES Permit Re-Application document was prepared by a project team that consisted of representatives from DOE, Environmental Protection and Compliance Division's Compliance Program (ECP-CP) Group, Outfall owners, and Facility Operations Directors/Managers. The project team responsibilities and activities were outlined in a project Implementation Plan (Appendix K). The following sections provide a brief discussion of the work activities and the procedures and processes that were utilized by personnel to ensure that the information provided in this re-application document is complete and accurate.

6.1 Outfall Survey

The outfall survey was to accumulate records, logs, operating procedures, sampling data, compliance inspection reports, topography maps, chemical inventories, WSPs, Safety Data Sheets, Notice of Change/Plans to Change, and previous Laboratory discharge non-compliance records and reports to support completion of the Form 2C for each outfall. The outfall survey included site visits to each of the 11 outfalls and their associated treatment facilities to take photographs, provide confirmation of the sources and processes, verify the outfall location, and collect documentation.

6.2 Outfall Effluent Sampling and Analysis

The Permittees prepared a project specific Sampling and Analysis Plan (SAP) (Appendix L) to ensure that representative samples were collected, preserved, and managed in accordance with the EPA application Form 2C. All samples were collected in accordance with the project specific SAP; EPC-CP-QP-005, *Sampling at NPDES Permitted Point-Source Outfalls;* and *EPC-CP-IWD-005, IWD Part 1, NDPES Outfall Sampling.* The samples were shipped by the Sample Management Office (SMO) to a LANL approved analytical laboratory required to use EPA approved methods and follow DOE contract requirements.

All analytical data, upon receipt from the laboratory, was formally validated. After the data was validated it was forwarded to ECP-CP from the SMO and hand entered onto the Form 2C. The accuracy of the hand entered data was independently verified and the review documented, forwarded to the appropriate record series, and a hard copy sent to ECP-CP.

6.3 Document Control/Records Management

Effective document control, record keeping, and data management was conducted in accordance with ADESH-AP-007, *Document Control*; ADESH-AP-006, *Records Management*; and EPC-CP-QAPP-NPDES, Quality Assurance Project Plan for the NPDES Industrial Point Source Permit (IPSP) Self-Monitoring Program..

6.4 Quality Assurance

The quality assurance (QA) for the project was performed in accordance with SD330, *Los Alamos National Laboratory Quality Assurance Program, ADESH-QAP-001, Quality Assurance Plan,* and EPC-CP-QAPP-NPDES IPSP, *Quality Assurance Project Plan for the NPDES Industrial Point Source Permit (IPSP) Self-Monitoring Program.* Quality assurance reviews for data accuracy were conducted throughout the project to ensure that data collected from the outfall surveys, site visits, and sampling activities were reasonable and adequately documented. These QA reviews were initially be conducted by project personnel as the data was collected and/or received. Questionable or undocumented data initiated additional investigations with outfall owners/operators. To ensure accuracy, all collected or compiled data was compared and evaluated against existing data obtained from other internal and external entities.

Formal reviews were also conducted by subject matter experts, the outfall owners; and EPC-CP personnel. These included formal comment review and response to ensure that all changes were documented.

7.0 REFERENCES

ADESH-AP-006: Records Management.

ADESH-AP-007: Document Control.

ADESH-QAP-001: Quality Assurance Plan.

DOE 2008a: "Final Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico," U.S. Department of Energy report DOE/EIS-0380 (May 16, 2008).

DOE 2008b: "Record of Decision: Final Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory in the State of New Mexico," Federal Register, Volume 73, p. 55833. Washington, D.C. (September 26, 2008).

EPC-CP-IWD-005: IWD Part 1, NDPES Outfall Sampling.

EPC-CP-QAPP-NPDES IPSP: Quality Assurance Project Plan for the NPDES Industrial Point Source Permit (IPSP) Self-Monitoring Program.

EPC-CP-QP-005: Sampling at NPDES Permitted Point-Source Outfalls.

LANL 2005: "Los Alamos National Laboratory's Hydrogeologic Studies of the Pajarito Plateau: A Synthesis of Hydrogeologic Work Plan Activities (1998–2004)," Los Alamos National Laboratory document LA-14263-MS (December 2005).

LA-UR-15-23948: NPDES Permit No. NM0028355.

NMWQCC 2013: "State of New Mexico Standards for Interstate and Intrastate Surface Waters," New Mexico Water Quality Control Commission, 20.6.4 New Mexico Administrative Code.

P409: Los Alamos National Laboratory Waste Management.

P-409-1: Los Alamos National Laboratory Waste Acceptance Criteria.

PA-AP-01039: Waste Acceptance Criteria for Transuranic Radioactive Liquid Waste.

SD330: Los Alamos National Laboratory Quality Assurance Program.

EXHIBIT B

Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102

NPDES Permit No. NM0028355

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Clean Water Act, as amended,
(33 U.S.C. 1251 et. seq; the "Act"),

Triad National Security, LLC Los Alamos National Laboratory PO Box 1663, K491 Los Alamos, New Mexico 87544	AND	U.S. Department of Energy Los Alamos Area Office, A316 3747 West Jemez Road Los Alamos, NM 87544

are authorized to discharge from a facility located at Los Alamos,

to receiving waters named: Perennial portion of Sandia Canyon in Waterbody Segment No. 20.6.4.126, and Mortandad Canyon, Canada del Buey, Los Alamos Canyon, ephemeral portion of Sandia Canyon, Ten Site Canyon, and Canon de Valle, in Waterbody Segment No. 20.6.4.128 of the Rio Grande Basin,

in accordance with this cover page and the effluent limitations, monitoring requirements, and other conditions set forth in Parts I [Requirements for NPDES Permits], II [Other Conditions], III [Standard Conditions for NPDES Permits], and IV [Sewage Sludge Requirements] hereof.

This permit, prepared by Isaac Chen, Environmental Engineer, Permitting Section (6WDPE), supersedes and replaces NPDES Permit No. NM0028355 issued August 12, 2014, then modified March 27, 2015, with an expiration date of September 30, 2019.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

_____
Charles W. Maguire
Director
Water Division (6WQ)

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PART I - REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001

Discharge Type: Continuous
Latitude 35°52'26"N, Longitude 106°19'09"W (TA-3-22)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge Power Plant waste water from cooling towers, boiler blowdown drains, demineralizer backwash, R/O reject, and including treated sanitary wastewater effluent from the Sanitary Wastewater System (SWWS) Facility, recycled sanitary effluent from the Sanitary Effluent Reclamation Facility (SERF), and treated cooling tower blowdown from the Strategic Computing Complex (SCC) to Sandia Canyon, and the discharge creates a perennial portion of Sandia Canyon, Segment Number 20.6.4.126 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	Continuous	Record
TSS	30	100	Report	Report	1/Month	24-hr Composite
BOD (*1)	30	45	73	109	1/Month	24-hr Composite
E. Coli (#/100 ml) (*2)	126	410	***	***	2/Month	Grab
Total Residual Chlorine	***	0.011 (*3)	***	***	1/Week	Grab
Total Recoverable Aluminum	Report	Report	***	***	1/Year	Grab
Total Copper	0.0087	0.0087	***	***	1/Year	Grab
Total Zinc	0.126 (*4)	0.126 (*4)	***	***	1/Year	Grab
6T3 Temperature (°C)	20°C (*5)	***	***	***	1/Hour	Grab (or Continuous Record)
Total PCB (µg/l) (*6)	0.00064	0.00064	Report	Report	1/Year	24-hr Composite

pH (Standard Unit)	Range from 6.6 to 8.8	***	***	1/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY (*7) (7-day Chronic Static Renewal)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Ceriodaphnia dubia (Limit)	100%	1/6-Months	24-Hr Composite
Pimephales promelas	Report	1/5-Years	24-Hr Composite

FOOTNOTES

*1 BOD monitoring is required when discharges of treated sanitary waste occur at Outfall 001.

*2 Geometric mean. Effluent limitations and monitoring requirements only apply when effluent from Outfall 13S is rerouted and discharged at Outfall 001.

*3 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

*4 Effluent limitations take effective on the date of three years from the effective date of the permit.

*5 6T3 Temperature of 20°C (68°F) shall not be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days. Daily maximum temperature shall be determined by 6T3 temperature record when 6T3 temperature.

*6 EPA published congener Method 1668 Revision and detection limits shall be used. [The permittee is allowed to develop an effluent specific MDL in accordance with Appendix B of 40 CFR Part 136 (instructions in Part II.A of this permit).] Human health-based limitations.

*7 Critical dilution 100%, and the dilution series are 32%, 42%, 56%, 75%, 100%. See Part II, Section G. Whole Effluent Toxicity (7-Day Chronic Testing). WET limit applies to Ceriodaphnia dubia. WET monitoring only applies to Pimephales promelas.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge from Outfall 001.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 13S

Discharge Type: Continuous
Latitude 35°51'08"N, Longitude 106°16'29"W (TA-46-347)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated sanitary waste water to Sandia Canyon in Segment Numbers 20.6.4.126 via outfalls utilizing treated effluent as specified in Outfall 001 and Category 03A, or to Canada del Buey in Segment Numbers 20.6.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	Continuous	Record
BOD	30	45	73	109	1/Month	24-hr Composite
TSS	30	45	73	109	1/Month	24-hr Composite
E. Coli (#/100 ml) (*1)	548	2507	***	***	2/Month	Grab
Total Residual Chlorine	***	0.011 (*2)	***	***	1/Week	Grab
Total PCB (µg/l) (*3 and*4)	0.00064	0.000642	Report	Report	1/Year	24-hr Composite
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING (*5)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
(48-hr Static Renewal) Daphnia pulex	Report	1/ 2-Years	24-Hr Composite

FOOTNOTES

*1 Logarithmic mean. If the wastewater is discharge at other outfall, it shall comply with effluent limitations and monitoring requirements for E. coli as established for Outfall 13S.

*2 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

*3 If the wastewater is discharge at other outfall, it shall comply with effluent limitations and monitoring requirements for PCBs as established for Outfall 13S. EPA published congener Method 1668 Revision and detection limits shall be used for reporting purposes. The permittee is allowed to develop an effluent specific MDL in accordance with Appendix B of 40 CFR Part 136 (instructions in Part II.A of this permit).

*4 Human health-based limitation.

*5 1st sample in the 1st year of the permit and 2nd sample in the 3rd year of the permit. The WET test should occur between November 1 and March 31. If discharges are not expected to occur during this sampling period, the test should be taken as soon as possible. Critical dilution 100%, and the dilution series are 32%, 42%, 56%, 75%, 100%.
See Part II, Section H. Whole Effluent Toxicity (48-Hr Acute Testing).

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements shall be taken at the following location(s): at the flow measuring device in Canada del Buey only when a discharge occurs at the outfall.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 051 - Radioactive Liquid Waste Treatment Facility

Discharge Type: Intermittent
Latitude 35°51'54"N, Longitude 106°17'52"W (TA-50-1)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated radioactive liquid waste to Mortandad Canyon in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*4)
COD	125	125	***	***	1/Month	Grab
TSS	30	45	73	109	1/Month	Grab
Total Toxic Organics (*1)	1.0	1.0	***	***	1/Month	Grab
Ra 226+228 (pCi/l)	30	30	***	***	1/Week	Grab
Total Copper	0.005	0.005	***	***	3/Week	Grab
Total Hardness	Greater than or equal to 50 mg/l				3/Week	Grab
Total Residual Chlorine	***	0.011 (*2)	***	***	1/Week	Grab
Perchlorate	Report	Report	***	***	1/Week	Grab
Adjusted Gross Alpha	Report	Report	***	***	1/Year	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
Whole Effluent Lethality (51711) (48-Hr Acute NOEC) (*3)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	100%	1/3 Months	3-Hr Composite

FOOTNOTES

*1 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls.

*2 The effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

*3 Monitoring and reporting requirements begin on the effective date of this permit. 100% limitation becomes effective on March 1, 2016. Critical dilution 100%, and the dilution series are 32%, 42%, 56%, 75%, 100%. Also see Part II, Section I. Whole Effluent Toxicity (48-Hour Acute Limits).

*4 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following the final treatment and prior to or at the point of discharge from TA-50-1 treatment plant.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 05A055 - High Explosives Waste Water Treatment Plant

Discharge Type: Intermittent
Latitude 35°50'49"N, Longitude 106°19'51"W (TA-16-1508)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated waste water from the high explosives waste water treatment facility to a tributary to Canon de Valle in segment number 20.6.4.128 of the Rio Grande Basin

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*4)
COD	125	125	***	***	1/Quarter	Grab
TSS	30	45	***	***	1/Quarter	Grab
Total Toxic Organics (*1)	1.0	1.0	***	***	1/Quarter	Grab
Oil and Grease	15	15	***	***	1/Quarter	Grab
Trinitrotoluene	0.02	Report	***	***	1/Quarter	Grab
Total RDX	0.20	0.66	***	***	2/Month (*2)	Grab
Perchlorate	Report	Report	***	***	1/Year	Grab
Total Recoverable Aluminum	0.027 (*3)	0.027 (*3)	***	***	1/Week	Grab
Total Copper	0.0009 (*3)	0.0009 (*3)	***	***	1/Week	Grab
Total Lead	0.004 (*3)	0.004 (*3)	***	***	1/Week	Grab
Total Recoverable Selenium	0.005 (*3)	0.005 (*3)	***	***	1/Week	Grab
Total Zinc	0.013 (*3)	0.013 (*3)	***	***	1/Week	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING	MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING (*5) (48-Hour Acute Static Renewal)	VALUE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	1/5 Years	3-Hr Composite

FOOTNOTES

*1 The limits and monitoring for Total Toxic Organics do not include 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), Pesticides, or Polychlorinated biphenyls.

*2 One sample should be taken before the 15th of the month and another taken after the 15th of the month.

*3 The effective date of the effluent limitations is three (3) years from the effective date of the final permit. Report only prior to the effective date.

*4 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

*5 The WET test should occur during the period of November 1 to March 31 after the effective date of the permit. If no discharge is expected during this period, testing should be taken as soon as possible. Critical dilution 100%, and the dilution series are 32%, 42%, 56%, 75%, 100%. See Part II, Section H. Whole Effluent Toxicity (48-Hour Acute Testing).

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 03A022

Discharge Type: Intermittent
Outfall 03A022: Latitude 35°52'14"N, Longitude 106°19'01"W (TA3-2274)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water, roof drain water, and once-through cooling water for emergency use only to Mortandad Canyon, in segment number 20.6.4.128 of the Rio Grande Basin. (Cooling tower blowdown is not authorized for discharge at this outfall.)

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*2)
TSS	30	100	***	***	1/Quarter	Grab
Total Residual Chlorine	***	0.011	***	***	1/Week (*1)	Grab
Dissolved Copper	Report	Report	***	***	1/Year	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

Footnote

*1 When discharge of once-through cooling water for emergency purposes only.
*2 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)
Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 03A181

Discharge Type: Intermittent
Outfall 03A181: Latitude 35°51'50.8"N, Longitude 106°18'05"W (TA55-6)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water, cooling tower blowdown and other wastewater to Mortandad Canyon, in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*3)
TSS	30	100	***	***	1/Quarter	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
Chromium VI (*2)	0.016	0.016	***	***	1/Term	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes. TRC applies when discharges of cooling tower blowdown occur only.
*2 Effluent limitations take effective on the date of three years from the effective date of the permit.
*3 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 03A113

Discharge Type: Intermittent
Outfall 03A113: Latitude 35°52'03"N, Longitude 106°15'43"W (TA-53-293 & 952)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown and other wastewater to Sandia Canyon, in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*2)
TSS	30	100	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
Total Recoverable Aluminum	Report	Report	***	***	1/Year	Grab
Total Mercury	Report	Report	***	***	1/Year	Grab
Adjusted Gross Alpha	Report	Report	***	***	1/Year	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.

*2 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALLS 03A027

Discharge Type: Intermittent
Outfall 03A027: Latitude 35°52'26"N, Longitude 106°19'08"W (TA3-2327)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown comingling with other wastewaters to Sandia Canyon, in segment number 20.6.4.126 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below: (Monitoring and reporting are not required if effluents are are discharged via Outfall 001.)

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*4)
TSS	30	100	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
E. Coli (#/100 ml) (*2)	548	2507	***	***	2/Month	Grab
Total PCB (µg/l) (*2)	0.00064	0.000642	Report	Report	1/Year	Grab
Total Copper (*3)	0.0087	0.0087	***	***	1/Year	Grab
Total Zinc (*3)	0.126	0.126	***	***	1/Year	Grab
Total Recoverable Aluminum	Report	Report	***	***	1/Year	Grab
Temperature (°C)	Report (*5)	Report (*5)	***	***	1/Quarter	Grab (or Continuous Record)
Dissolved pH (Standard Unit)	Range from 6.6 to 8.8		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*2 Effluent limitations and monitoring requirements only apply at Outfall when effluent from Outfall 13S is rerouted and discharged at the Outfall. E. coli limitations are geometric mean. Total PCB effluent limitations established at Outfall 13S applies when effluent from Outfall 13S is rerouted and discharged at Outfall 03A027.
*3 Effluent limitations take effective on the date of three years from the effective date of the permit.
*4 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.
*5 May use 6T3 recorder if desired.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALLS 03A048

Discharge Type: Intermittent
03A048: Latitude 35°52'11"N, Longitude 106°15'45"W (TA-53-964 & 979)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown and other wastewater to Los Alamos Canyon, in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*2)
TSS	30	100	***	***	1/Quarter	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*2 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)
Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 03A160

Discharge Type: Intermittent
Outfall 03A160: Latitude 35°51'47"N, Longitude 106°17'49"W (TA35-124)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown and other wastewater to Ten Site Canyon, in segment number 20.6.4.128 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below: (Monitoring and reporting are not required if effluents are conveyed to SWWS for treatment and discharge.)

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*3)
TSS	30	100	***	***	1/Quarter	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
Total Mercury (µg/l) (*2)	0.77	0.77	***	***	1/Week	Grab
Total Selenium (*2)	0.005	0.005	***	***	1/Week	Grab
Total Cyanide (*2)	0.0052	0.0052	***	***	1/Week	Grab
Chromium VI (*2)	0.016	0.016	***	***	1/Term	Grab
pH (Standard Unit)	Range from 6.0 to 9.0		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*2 Effluent limitations take effective on the date of three years from the effective date of the permit.

*3 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box located in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

OUTFALL 03A199

Outfall 03A199: Latitude 35°52'33"N, Longitude 106°19'19"W (TA3-1837)

During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown and other wastewater to Sandia Canyon, in segment number 20.6.4.126 of the Rio Grande Basin.

Such discharges shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTIC	DISCHARGE LIMITATIONS				MONITORING REQUIREMENTS	
	CONCENTRATION (mg/L, unless stated)		LOADING (Lbs/day, unless stated)		FREQUENCY	SAMPLE TYPE
	MONTHLY AVERAGE	DAILY MAXIMUM	MONTHLY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	***	***	Report	Report	1/Day	Estimate (*3)
TSS	30	100	***	***	1/Quarter	Grab
Total Residual Chlorine (*1)	***	0.011	***	***	1/Week	Grab
Total Phosphorus	20	40	***	***	1/Quarter	Grab
Total Copper (*2)	0.0087	0.0087	***	***	1/Year	Grab
Total Zinc (*2)	0.126	0.126	***	***	1/Year	Grab
Total Recoverable Aluminum	Report	Report	***	***	1/Year	Grab
Temperature (°C)	Report (*4)	Report (*4)	***	***	1/Quarter	Grab (or Continuous Record)
pH (Standard Unit)	Range from 6.6 to 8.8		***	***	1/Week	Grab

FOOTNOTES

*1 Effluent limitation for TRC is the instantaneous maximum and cannot be averaged for reporting purposes.
*2 Effluent limitations take effective on the date of three years from the effective date of the permit.
*3 "Estimate" flow measurements shall not be subject to the accuracy provisions established at Part III.C.6. The daily flow value may be estimated using best engineering judgment.
*4 May use 6T3 recorder if desired.

SAMPLING LOCATION(S)

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): following final treatment and prior to or at the point of discharge.

NO DISCHARGE REPORTING

If there is no discharge event at this outfall during the sampling month, place an "X" in the NO DISCHARGE box in the Discharge Monitoring Report. Electronic DMR reporting will use the appropriate "No Discharge" or "NODI" codes such as NODI code C= No discharge.

FLOATING SOLIDS, OIL AND GREASE

There shall be no discharge of oils, scum, grease and other floating materials that would cause the formation of a visible sheen or visible deposits on the bottom or shoreline, or would damage or impair the normal growth, function or reproduction of human, animal, plant or aquatic life.

B. COMPLIANCE SCHEDULES

All effluent limitations with a compliance schedule established in Part I., section A. above, must comply with the following reporting requirements and compliance schedules:

1. Provide semi-annual progress reports by August 31 for the period of January – June, and by February 28 for the period of July – December;

2. Identify sources or causes of exceedance of permit limitations by six months from the effective date of the permit;

3. Identify corrective measures or study plan by one year from the effective date of the permit;

4. Comply with the final effluent limitations by the date specified in Part I. section A. of the permit.

C. REPORTING OF MONITORING RESULTS (MAJOR DISCHARGERS)

Monitoring information shall be submitted as specified in Part III.D.4 of this permit and shall be submitted monthly.

1. Reporting periods shall end on the last day of the month.

2. The permittee is required to submit regular monthly reports as described above no later than the 28th day of the month following each reporting period.

The permittee shall report all overflows with the Discharge Monitoring Report submittal. These reports shall be summarized and reported in tabular format. The summaries shall include: the date, time, duration, location, estimated volume, and cause of the overflow; observed environmental impacts from the overflow; actions taken to address the overflow; and ultimate discharge location if not contained (e.g., storm sewer system, ditch, tributary). Any noncompliance which may endanger health or the environment shall be made to the EPA at the following e-mail address: R6_NPDES_Reporting@epa.gov, as soon as possible, but within 24-hours from the time the permittee becomes aware of the circumstance. This language supersedes that contained in Part III.D.7 of the Permit. Additionally, oral notification shall also be to the New Mexico Environment Department at (505) 827-0187 as soon as possible, but within 24 hours from the time the permittee becomes aware of the circumstance. A written report of overflows which endanger health or the environment shall be provided to EPA and the New Mexico Environment Department, within 5 days of the time the permittee becomes aware of the circumstance.

D. APPLICATION

A complete copy of application with original officer signature for permit renewal shall be sent to EPA and either a paper copy or an electronic copy shall be sent to New Mexico Environment Department (NMED) at the mailing address listed in Part III of this permit.

EXHIBIT C

AUTHORIZATION TO DISCHARGE TO WATERS OF THE UNITED STATES,
NPDES PERMIT NO. NM0028355.

The industrial discharges from Los Alamos National Laboratory (LANL) is managed by

Triad National Security, LLC
PO Box 1663, K491
Los Alamos, New Mexico 87544

The facility locates in Los Alamos County, New Mexico. Under the Standard Industrial Classification (SIC) Codes 9922, 9711, 9661, and 9611, LANL is a large multi-disciplinary facility which conducts national defense research and development, scientific research, space research and technology development, and energy development.

The discharges are to receiving waters consisting of various tributaries in Waterbody Segment Code No. 20.6.4.126 and 20.6.4.128 of the Rio Grande Basin.

EPA proposes some significant changes from the permit previously issued with an expiration date of September 30, 2019. Water quality-based effluent limitations change are due to new effluent flow or quality information.

A. All Outfalls: Deleting monitoring requirements and/or effluent limitations for pollutants which new effluent characteristics demonstrated no Reasonable Potential further described in Part V.C.4.
B. Outfall 001: Adding WET limit for Ceriodaphnia dubia; and adding/retaining effluent limitations for copper, zinc and PCBs.
C. Outfall 051: Adding effluent limitations for copper and monitoring only for adjustable gross alpha.
D. Outfall 05A055: Adding/revising effluent limitations for aluminum, copper, lead, selenium and zinc.
E. Outfall 03A027: Adding/retaining effluent limitations for copper, zinc and PCBs; and deleting WET testing. Adding monitoring only for total recoverable aluminum and temperature.
F. Outfall 03A160: Adding/retaining effluent limitations for chromium (VI), mercury, selenium and cyanide.
G. Updating WET languages.
H. Outfall number 04A022 is changed to 03A022, the name change does not affect effluent limitations. Adding monitoring only for dissolved copper.
I. Adding monitoring only for total recoverable aluminum, total mercury and adjusted gross alpha at Outfall 03A113.
J. Adding monitoring only for total recoverable aluminum and temperature at Outfall 03A199.

A fact sheet is available.

Public Hearing & Public Meeting

The Presiding Officer designated by the Regional Administrator of EPA, Region 6, will conduct a public hearing on the draft NPDES permit, with a public information meeting and question and answer session prior to the public hearing, at the locations below:

Los Alamos National Laboratory Permit No. NM0028355
Place: Pojoaque Valley Sixth Grade Academy
1574 State Road 502 West, Santa Fe, NM 87506
Time: Public Meeting 5:00 pm; Public Hearing 7:00 pm
Date: January 15, 2020

Los Alamos National Laboratory Permit No. NM0030759
Place: Pojoaque Valley Sixth Grade Academy
1574 State Road 502 West, Santa Fe, NM 87506
Time: Public Meeting 5:00 pm; Public Hearing 7:00 pm
Date: TBD

Registration for the hearing will be thirty (30) minutes before the start of the hearing. Any person requiring special arrangements should notify EPA through the contact person listed below within ten (10) days of this notice. The public hearing will be held in accordance with the requirements of 40 CFR 124.12. At the public hearing, any person may submit oral or written statements and data concerning the proposed permit. Any person who cannot attend the public hearing may still submit written comments through the end of the comment period.

For more information, please contact Ms. Evelyn Rosborough, U.S. Environmental Protection Agency, at (214) 665-7515 or Rosborough.evelyn@epa.gov.

State Certification

This Notice also serves as Public Notice of the intent of the New Mexico Environment Department, Surface Water Quality Bureau to consider issuing Clean Water Act (CWA) Section 401 Certification. The purpose of such certification is to reasonably ensure that the permitted activities will be conducted in a manner that will comply with applicable New Mexico water quality standards, including the anti-degradation policy, and the statewide water quality management plan. The NPDES permit will not be issued until the certification requirements of Section 401 have been met.

If you want to comment, please submit written comments within the 60-day period from 11/30/2019 thru 1/28/2020 to:
Update: Comment period extended 30-days until 3/31/2020.

Sarah Holcomb, Program Manager-PSRS
New Mexico Environment Department
Surface Water Quality Bureau (N2050)
1190 Saint Francis Drive
P.O. Box 5469
Santa Fe, NM 87502-5469
Phone: 505-827-2798
Fax: 505-827-0160
sarah.holcomb@state.nm.us

EXHIBIT D

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

Public Meeting Re

Proposed Changes To The

LANL Industrial Wastewater Permit

(NPDES Permit No. NM0028355)

TRANSCRIPT OF PROCEEDINGS

January 15, 2020
7:00 p.m.
Pojoaque Valley Sixth Grade Academy
1574 State Road 502 West
Santa Fe, New Mexico 87506

REPORTED BY: ROBIN E. JOHNSON, NM CR 105, RPR, CA CSR
PAUL BACA COURT REPORTERS
500 Fourth Street Northwest, Suite 105
Albuquerque, New Mexico 87102
(505) 843-9241

A P P E A R A N C E S

THOMAS RUCKI, HEARING OFFICER
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202
(214) 665-2759

EVELYN ROSBOROUGH
U.S. Environmental Protection Agency
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102
(214) 665-7515

ISAAC CHEN, PERMIT WRITER
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202
(214) 665-7364

I N D E X

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OPENING COMMENTS

MR. RUCKI: Good evening, everyone. It's approximately 7:07, on January 15th, and the public hearing is now in session and officially on record.

My name is Tom Rucki. I'm the Regional Judicial Officer for EPA Region 6 and Senior Counsel.

I'm the Designated Hearing Officer for this hearing. My responsibility includes fully developing a public hearing record by taking public comments from each of the parties.

EPA will consider the public hearing record during its decision-making process. Please note that I do not participate in the decision-making process, and I have no influence on the permits.

And, in addition to me, there are EPA representatives here that you also heard speak earlier.

And the purpose of the public hearing is as follows:

MR. CHEN: Good evening. My name is Isaac Chen, and I am a Permit Writer in the EPA Region 6 Water Division. I will be giving a brief overview of the proposed permitting action that is the subject of tonight's hearing.

The Los Alamos National Laboratory (LANL) facility is located primarily in Los Alamos County,

New Mexico. LANL is a large, multidisciplinary facility which conducts national defense research and development, scientific research, space research and technology development and energy development.

The discharges from the facility are to various tributaries to the Rio Grande in New Mexico Water Quality Standards Waterbody Segment Codes No. 20.6.4.126 and 20.6.4.128 of the Rio Grande Basin.

On November 28th, 2019, the EPA Region 6 published notice of a proposal to issue the NPDES Permit No. NM0028355 on EPA's website at https://www.epa.gov/publicnotices and provided a draft permit and fact sheet for public review and comment.

The fact sheet, dated October 31, 2019, provides the rationale and basis for the permit, discharge limits and other permit conditions.

Concurrently, in accordance with CWA 401(a)(1) and (a)(2), the Region requested certification from the State of New Mexico. Also, pursuant to EPA's Tribal Consultation Policy, EPA offered San Ildefonso, Cochiti Pueblo, Pueblo of Santa Clara and Pueblo of Jemez the opportunity to engage in government-to-government consultation because they are part of the Los Alamos Pueblos Project.

Please note that the EPA does not take any

position, nor is claiming any jurisdiction on water rights issues when EPA proposes this NPDES permit under the Clean Water Act.

EPA published notice of the draft permit and the intent to hold a public meeting and public hearing on EPA's Public Notices website on December 4, 2019.

On December 16, 2019, a mass mailing was made to interested parties on the NPDES mailing lists.

And on December 16, 2019, the Public Notice website was updated to inform all other interested parties that a Public Informational Meeting and Public Hearing would be held at 5:00 p.m. and 7:00 p.m., respectively.

On January 15, 2020, at the Pojoaque Valley Sixth Grade Academy, at 1574 State Road 502 West, Santa Fe, New Mexico 87506. In response to requests from the public, the comment period for the draft permit has been extended to February 27, 2020.

Thank you.

MR. RUCKI: So, there are some basic outlines and basic procedures we have for the public hearing.

As some of you may know, this is not an evidentiary hearing. This is not a trial. There is no cross-examination.

As the Hearing Officer, I can ask people

questions, but only for clarification of the record. Otherwise, people making comments will not be questioned, and they will not be questioning EPA representatives.

EPA will respond to questions and issues raised in the record tonight. Not now, but in a document. There is a responsive document, which will be a formal document addressing all your concerns that you bring up today.

I will call on anyone who is registered with Evelyn over here to make comments. If you have not filled out a card yet and you would like to speak, please give her one.

As Hearing Officer for the public hearing, I can impose time limits. In this situation, it sounds like we don't have any speakers, and we have until 8:30 to be heard. So, usually, you limit people to about five to ten minutes, but if you have a little bit more to say, feel free, unless we realize there is more people that want to speak.

After the public hearing closes, EPA will continue to accept written comments, as we discussed. Written comments should be submitted by the method described in the EPA notice.

If there are questions regarding how to

submit those comments, please let someone from the EPA know, and we'll make sure to get you that information.

The written comments are considered the same way as oral comments. If you don't get to say what you said today, don't worry about it. You'll still get that opportunity.

With that, I'll take the first comment. I believe it was from James.

Yes, James. You can come up here just so the court reporter can hear you. But you do have a loud voice.

MR. BEARZI: I can boom.

My name is James Bearzi. I'm the Senior Environmental Scientist with Glorieta Geoscience, an environmental and water resources consulting firm in Santa Fe.

We are the technical consultants for the Buckman Direct Diversion Board, the governing body for the Buckman Direct Diversion.

The Diversion is a single diversion point on the Rio Grande that the City of Santa Fe, Santa Fe County, and their limited partner, Los Campanas, share to divert San Juan-Chama and native Rio Grande water rights. The diverted water is treated and introduced into the regional water system.

The government entities, the City and the County, are represented on the board.

The Buckman Direct Diversion is on the Rio Grande, approximately three miles downstream of Otowi Bridge, near the location of the confluence of Los Alamos Canyon and the Rio Grande. The board is, therefore, understandably concerned about runoff Los Alamos Canyon and its tributaries.

NPDES Permit No. NM0028355 covers 11 outfalls or locations of discharge of industrial pollutants to waters of the U.S., in this case, the Rio Grande.

One of those outfalls, known as T-53 03A048, discharges treated cooling water that originates at TA-53 to a tributary of Los Alamos Canyon and is, therefore, of particular interest to the board.

Our comments concern two areas. One is how EPA determined the effluent limits and the constituents that would be subject to them in the permit, and then the second area is those limits themselves.

We have found certain discrepancies between the fact sheet and the permit that need to be clarified before a final permit is issued.

We also have noted that the approach for determining reasonable potential appears to change throughout the fact sheet from the beginning to the end

depending on the findings as one goes through the fact sheet.

We would appreciate EPA clarifying how they calculated reasonable potential, particularly as it relates to consistency between the approach used between outfalls and among constituents for each outfall.

The current permit for this outfall has effluent limitations for total recoverable aluminum, total arsenic, dissolved copper, total mercury and dissolved mercury. EPA proposes to delete those limitations and monitoring requirements from the final permit based on its analysis.

The current permit also has monitoring requirements for gross alpha and chromium (VI). EPA proposes to remove those monitoring requirements also, subject to their analysis.

Because of the confusion that I've already alluded to, the Board is concerned that these proposed changes to the permit may not sufficiently protect the Buckman Direct Diversion, and we urge EPA to retain the more stringent monitoring and effluent limitations in the existing permit.

These do not constitute the Board's only comment for this permit, and we reserve our rights and

opportunities to provide written comment during the public comment period. Thank you.

MR. RUCKI: Thank you, James.

Joni Arends?

You are welcome to come up here. If you can boom like James, you can stay over there.

MS. ARENDS: My name is Joni Arends, and I'm with Concerned Citizens For Nuclear Safety. And I wanted to say that we're not going to make any formal public comments tonight, but that we appreciate the extension of the comment period because of the number of other activities that are going on in New Mexico, as well as the voluminous amount of material to review to make informed public comment. So, thank you.

MR. RUCKI: Thank you.

Well, for I guess the next 30 or 40 minutes, we'll go off record, unless someone comes in that would like to speak or if someone changes their mind and would like to speak.

So, it is 7:19, and we are off record.

(Off the record from 7:19 until 8:02 p.m.)

MR. RUCKI: We're back on the record. There are no further comments or issues to be addressed. The public hearing is concluded on January 15th, 2020, at 8:02 P.M.

REPORTER'S CERTIFICATE

I, ROBIN E. JOHNSON, RPR, CA CSR, New Mexico Certified Shorthand Reporter, certify:

That the foregoing proceedings were taken before me at the time and place therein set forth;

That the questions propounded and all objections and statements made at the time of the hearing were recorded stenographically by me and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

I further certify that I am not a relative or employee of any of the parties, nor financially interested in the action.

I declare under penalty of perjury, under the laws of New Mexico, that the foregoing is true and correct, dated this 20th day of January 2020.

_____

ROBIN E. JOHNSON, RPR, CA CSR
New Mexico CCR No. 105

EXHIBIT E

REOPENING OF PUBLIC COMMENT PERIOD
AUTHORIZATION TO DISCHARGE TO WATERS OF THE UNITED STATES,
NPDES PERMIT NO. NM0028355

On November 28, 2019, the U.S. Environmental Protection Agency (EPA) noticed for public comment the reissuance of NPDES Permit NO. NM002835 for the Los Alamos National Laboratory (LANL) facility in Los Alamos, New Mexico to Triad National Security, LLC (Triad) and the Department of Energy as co-permittees under Section 402 of the Clean Water Act (CWA or "the Act), 33 U.S.C. § 1251. The proposed permit authorizes LANL to discharge from various sanitary and/or industrial outfalls, including a discharge of treated radioactive liquid waste from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051 into Mortandad Canyon. After several extensions, the public comment period on reissuance of the permit formally ended on November 2, 2020.

During the comment period, EPA received data and information that appears to raise substantial new issues related to permit reissuance, including information and data regarding authorization of discharges from Outfall 051 and other outfalls that do not regularly discharge, pollutants in discharges related to the Radioactive Liquid Waste Treatment Facility (RLWTF), the RCRA exemption for discharges regulated under NPDES permits and the permit renewal application.

On November 12, 2020, Triad, which is the operator of LANL facility, and was only privy to the content of public comments after the comment period closed, requested that EPA reopen the comment period to allow submittal of additional information on the Record to address information provided in comments believed by Triad to be incomplete, misleading, or technical inaccurate that would help EPA in responding to those comments and make a final permit decision.

40 CFR 124.14 (b)(3) allows EPA to reopen the comment period "if any data information or arguments submitted during the public comment period … appear to raise substantial new questions concerning a permit…." in order "to give interested persons an opportunity to comment on the information or arguments submitted."

40 CFR 124.14 (c) states that "comments filed during the reopened comment period shall be limited to the substantial new questions that caused its reopening. The public notice under §124.10 shall define the scope of the reopening."

In accordance with the regulations cited above, EPA is granting Triad's request to reopen the public comment period related to EPA's reissuance of NPDES Permit NO. NM0028355 for an additional 30 days in order to allow interested persons, including Triad, to comment on and respond to substantial new information and data submitted during the original comment period.

Accordingly, the scope of the re-opened comment period is limited to the following:

1. Legal and factual issues pertaining to EPA's jurisdiction to issue an NPDES permit for Outfall 051.

2. Legal and factual issues pertaining to the applicability of the wastewater treatment unit exemption for the RLWTF [radioactive liquids waste treatment facility].

3. Factual issues concerning historical discharges from all outfalls covered by the permit application.

4. Derivation of the flow estimates for Outfall 051 or other outfalls that were provided in the renewal application.

5. Misc. factual issues (i.e., past permit application information vs. current; current discharges; permitting of outfalls that may discharge or discharge infrequently).

EPA is soliciting comments and supporting data as to the above issues ONLY. The additional 30-day public comment period begins on **January 30, 2021** and ends on **February 28, 2021**.

Note: CWA §401 Certification of the permit was provided by the New Mexico Environment Department on November 30, 2020, to meet a deadline of Sunday November 29, 2020, consistent with 40 CFR 124.20(c). EPA is unable to further extend the deadline for Certification, which as provided by 40 CFR 121.6(a) cannot exceed one year from the initial request for Certification. NMED is not reopening the State's comment period on CWA §401 Certification of the permit.

Because of COVID-19 response, access to the Region 6 EPA building is limited. Therefore, we request that all comments be submitted via email to:

Ms. Evelyn Rosborough
U.S. Environmental Protection Agency
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102
(214) 665-7515 or rosborough.evelyn@epa.gov

EXHIBIT F

Los Alamos National Laboratory
PO Box 1663, K490
Los Alamos, NM 87545
505-667-0666

Environmental Protection & Compliance Division
Compliance Programs Group

Symbol: EPC-DO: 21-057
LAUR: 21-21278
Locates: N/A
Date: FEB 25 2021

Ms. Evelyn Rosborough
U.S. Environmental Protection Agency
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102
rosborough.evelyn@epa.gov
214-665-7515

Subject: Supplemental Comments, Information, and Response Regarding Non-Governmental Organizations (NGO) Comments on the Draft 2019 National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for Los Alamos National Laboratory

Dear Ms. Rosborough:

The purpose of this letter is to provide supplemental comments, and information to address Non-Governmental Organizations (NGOs) public comments on the draft National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 issued by the U.S. Environmental Protection Agency (EPA) on November 30, 2019. Attachment 1 provides the U.S. Department of Energy National Nuclear Security Administration of the (DOE/NNSA) and Triad National Security, LLC (Triad) response to address erroneous interpretations of the Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA); and EPA regulations as they relate to the following:

1) NNSA DOE/Triad NPDES permit program.
2) Operation of the Technical Area (TA) 50 Radioactive Liquid Wastewater Treatment Facility at the Los Alamos National Laboratory.
3) Draft NPDES Permit issued for public comment on November 30, 2019.

In addition, the attachment addresses a number of incorrect factual statements and assertions regarding the contents of the 2019 NPDES Permit Re-Application submitted by DOE/NNSA and Triad to the EPA on March 26, 2019.

The DOE/NNSA and Triad respectfully submit the contents of Attachment 1 in accordance with the provisions identified in the Public Notice: Los Alamos National Laboratory (LANL) Limited Reopening of the Public Comment Period for NPDES Permit No. NM0028355. If you need additional information or have questions, please contact Karen Armijo, DOE/NNSA, at 505-665-7314 or Jennifer Griffin, Triad, at 505-667-6741.

Sincerely,

TAUNIA VAN VALKENBURG (Affiliate)
Digitally signed by TAUNIA VAN VALKENBURG (Affiliate)
Date: 2021.02.24 09:45:32 -07'00'

Taunia Van Valkenburg
Group Leader

Attachment(s): Attachment 1 Supplemental Comments and Information in Support of Proposed Renewal of NPDES Permit No. NM0028355

Copy: Brent Larson, EPA, Larsen.Brent@epa.gov
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ATTACHMENT 1

Supplemental Comments and Information in Support of Proposed Renewal of NPDES Permit No. NM0028355

EPC-DO: 21-057

LA-UR-21-21278

Date: FEB 25 2021

SUPPLEMENTAL COMMENTS AND INFORMATION

In support of

PROPOSED RENEWAL OF NPDES PERMIT NO. NM0028355

December 17, 2020

The National Nuclear Security Administration of the U.S. Department of Energy and Triad National Security, LLC (collectively, LANL) submit the following supplemental comments, information, and response to comments filed by Concerned Citizens for Nuclear Safety (CCNS) and others (collectively, the "citizen organizations") on the proposed renewal of National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355, dated October 15, 2020 ("Comments"). The permit would authorize discharges to waters of the United States from a number of outfalls located at the Los Alamos National Laboratory (LANL), including Outfall 051 located at LANL's Radioactive Liquid Waste Treatment Facility (RLWTF).

In their Comments, the citizen organizations present erroneous interpretations of the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), Environmental Protection Agency (EPA) regulations, and relevant case law. They also make a number of erroneous factual statements and assertions. LANL submits this response to those Comments to address the citizen organizations' misinterpretations of law and factual errors.

I. Citizen Organizations Have Misconstrued the Applicable Law.

The citizen organizations' Comments offer mistaken interpretations of the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the relationship between the two statutes, as they have in the past before the EPA Environmental Appeals Board and several federal courts. First, they erroneously assert that EPA lacks authority under the CWA to issue a discharge permit for outfalls that have not been utilized recently and/or continuously in the past and have not been described as meeting immediate future needs. Second, they mistakenly contend that the wastewater treatment unit (WWTU) exemption under RCRA applies only when the unit has been issued a discharge permit under the CWA. They string together these two misconceptions in order to construct an erroneous conclusion that EPA must deny LANL's application for a CWA permit, which will lead to a duty for the State of New Mexico to commence the permitting process for the RLWTF under RCRA. The discussion below addresses each point in turn.

A. EPA Has Clear Authority Under the CWA to Issue the Permit.

The CWA provides that EPA "may…issue a permit for the discharge of any pollutant…upon condition that such discharge will meet" various statutory

limitations. 33 U.S.C. § 1342(a). This language only makes sense if it is forward looking – i.e., the issuance of a permit for future discharges that "will" comply with the statutory requirements. It would be pointless for Congress to authorize EPA to grant permission for discharges that have already occurred, and it would be impossible for the Agency to ensure that such past discharges "will meet" effluent limitations. Clearly, Congress envisioned that EPA would first grant permission, conditioned as directed in the statute, and that thereafter such discharges would be legally sanctioned.

The citizen organizations nonetheless appear to contend that there must be an imminent future discharge in order that EPA would have such authority. They maintain that "the CWA contains no authority to issue a permit for a discharge that 'could occur,' nor for a 'potential' or a 'capability' to discharge." Comments at 24. They assert that the LANL intention to discharge "in event of unavailability of evaporation equipment" falls into these categories for which EPA is powerless to issue a permit. Nothing in the statute or EPA's longstanding practice supports this contention.

The citizen organizations' contention boils down to an argument that the applicant must show it has an unconditional intention to discharge in the near future, regardless of circumstances, or at least has demonstrated that a discharge is

likely, before EPA would have authority to grant the application. Id. We demonstrate below in Section II.A.1 that LANL satisfies even this extreme and erroneous test. But the statute does not mention such a limit on EPA's authority, and for good reason. Permit applicants who envision even the possibility of a discharge in unusual or rare circumstances are in fact meeting their responsibility to avoid unpermitted, and unlawful, discharges by ensuring they have permit authorization to cover such possibilities. It would be bizarre, to say the least, if Congress had imposed on EPA an obligation to assess the likelihood that circumstances would arise necessitating a discharge, and to issue a permit only when satisfied that the probabilities were sufficiently large. In the context of such a requirement, EPA could hardly justify enforcing the statute's prohibition on unpermitted discharges if it had previously deemed such discharges to be too remote to justify issuing a permit. The statutory scheme makes no provision for such a scenario.

The citizen organizations apparently reach their remarkable position by misapplying the holdings in two decisions from the Second and Fifth Circuits. Comments, 25-28. Those decisions have nothing to do with whether EPA has authority to issue a requested permit under the CWA.

In the first decision, industry petitioners challenged a provision in EPA's programmatic regulation governing Concentrated Animal Feeding Operations (CAFOs) that had required CAFO owners and operators to apply for a CWA discharge permit if there was a "potential to discharge" from their operations. *Waterkeeper Alliance, Inc. v. U.S. Environmental Protection Agency*, 399 F.3d 486 (2d Cir. 2005). EPA had termed this requirement a "duty to apply," and said the duty was based on a presumption that every CAFO has the potential to discharge. See Comments at 25, n. 42. Thus, the "duty to apply" was an EPA command requiring that all CAFOs must submit themselves to regulation that would control and constrain their means of operating their businesses. The "duty to apply" was itself an enforceable requirement, punishable by civil and criminal penalties independent of whether there had been any discharge of pollutants from the CAFOs. The Second Circuit concluded that the CWA conferred no authority on EPA to compel the filing of a permit application in the absence of an actual discharge. Because a mere potential to discharge lacks all of the elements triggering the statute's prohibition against unpermitted discharges (actual addition of pollutants to navigable waters from a point source), the court said there was "no statutory obligation of point sources to seek or obtain a [CWA] permit in the first instance." *Waterkeeper Alliance*, 399 F.3d at 505. Thus, there could be "no duty to apply" based on a mere potential to discharge, but the court never addressed

whether EPA could issue a permit in response to a voluntary permit application. The court did not address that question because no petitioner had raised it.

Despite this context and with no regard for the limits of the case or controversy before the court, the citizen organizations focus on a single sentence in the Second Circuit's decision, calling it a "categorical ruling": the court said "the Clean Water Act gives EPA jurisdiction to regulate and control only actual discharges—not potential discharges, and certainly not point sources themselves." Id. See Comments at 25-26. The citizen organizations work to utilize the court's language – "jurisdiction to regulate and control" – in support of their theory that EPA's permit issuance authority depends on the high likelihood of a discharge. The citizen organizations' reliance on this passage misuses the court's language and should be disregarded.

First, because no party had brought a challenge to EPA's authority to issue permits (as opposed to its authority to compel submission of permit applications), the court had no occasion to address it, and interpreting the court's language to cover EPA's permit-issuance authority, as the citizen organizations endeavor to do, renders the court's passage mere dictum. *Monod v. Futura, Inc.,* 415 F.2d 1170, 1173 (10th Cir. 1969) ("Because this issue was not properly before that court the conclusion is mere dicta and must be read as such.") *Tokoph v. United States*, 774

F.3d 1300, 1303 (10th Cir. 2014) ("[D]icta are statements and comments in an opinion concerning some rule of law or legal proposition not necessarily involved nor essential to determination of the case in hand.") (quoting *United States v. Villarreal-Ortiz*, 553 F.3d 1326, 1328 n.3 (10th Cir. 2009)). Reading a court's language so as to reduce it to dicta can hardly be seen as a plausible interpretation.

Second, the context of the case leads to a different interpretation of the court's language -- one that supports the common-sense notion that EPA has jurisdiction to require the "regulat[ion] and control" of private activity only when that activity would otherwise be unlawful (e.g., the prohibited discharge of a pollutant without a permit). The court was dealing with an EPA effort to compel CAFOs' submission to a regulatory regime. EPA sought to unilaterally impose requirements on CAFOs, in the absence of pollutant discharges or any otherwise unlawful actions, by requiring them to seek a permit which, according to the regulations, inevitably would restrict the CAFOs' operations. This is what the Second Circuit said could not be done, and the quoted passage stands for no more than that.

In the second decision, industry petitioners had challenged EPA's attempt to draft around the limitation that had been imposed by the Second Circuit. *National Pork Producers Council v. U.S. Environmental Protection Agency*, 635 F.3d 738

(5th Cir. 2011). Instead of regulating a CAFO with the "potential to discharge," EPA revised the CAFO regulation to enforce its "duty to apply" where a CAFO "proposes to discharge," and EPA defined that phrase as being a CAFO "designed, constructed, operated, and maintained in a manner such that the CAFO will discharge…." *Id*., 635 F.3d 738, 750. The Fifth Circuit rejected this attempt. As with the Second Circuit's decision in *Waterkeeper*, the Fifth Circuit in *National Pork* addressed only the EPA's authority to compel permit applications in the absence of actual discharges, not the Agency's quite different authority to issue a CWA permit in response to a voluntary application.

Other prominent features of the statute also underscore that EPA has jurisdiction to issue permits where discharges might or might not occur depending on external circumstances and irrespective of the applicant's aspirations or plans. EPA can exercise its jurisdiction whenever a person applies for a permit in order to remain in compliance with the law if circumstances make a discharge necessary. Nowhere is this authority better illustrated than in the storm water permitting provisions of the Act.

Storm water permitting represents a central feature of the Section 402 NPDES program. The statutory authority to permit future, episodic discharges of storm water has existed in the CWA since passage of the landmark 1972 Federal

Water Pollution Control Act Amendments, which later became known as the CWA. Pub. L. No. 92-500, 86 Stat. 816 (1972). The 1972 legislation established the Section 301 prohibition on unpermitted pollutant discharges and the Section 402 NPDES permit program. *Id.* at 844, 880. The same, original statutory commands and definitions that provide EPA's authority to permit discharges from LANL's Outfall 051 also provide the basis for permitting episodic storm water discharges.

In 1987, Congress enacted amendments to the CWA that required EPA to undertake rulemaking and implement comprehensive permitting for these pollutant sources. Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7 (1987). While the 1987 amendments breathed new life into EPA's storm water permitting program, they did not augment the original statutory authority to deal with these future, episodic discharges. The amendments added subsection 402(p), which directs EPA to issue permits that will authorize future storm water discharges from municipal and industrial point sources in the event that precipitation, together with other circumstances at a facility, necessitate a discharge. Pub. L. No. 100-4, 101 Stat. 7, 69-70 (1987) (codified as amended at 33 U.S.C. § 1342(p)(2)(B)—(D)).

The CWA stormwater permitting program is vast. The National Academy of Sciences estimated in 2009 that EPA and delegated States had provided NPDES

storm water discharge authorizations to about 7,000 municipalities and 100,000 industrial facilities. Committee on Reducing Stormwater Discharge Contributions to Water Pollution, National Academy of Sciences, *Urban Stormwater Management in the United States* 36 (2009). In addition, NPDES storm water permit coverage is authorized for about 200,000 construction projects each year. *Id.* Storm water discharge permit holders are required to implement a variety of best management practices to retard, retain and control the runoff of storm water containing pollutants ranging from eroded soil at construction sites to petroleum and chemicals at industrial sites. *Id.*

Because the large number of industrial facilities requiring NPDES storm water authorizations could easily overwhelm State and federal permitting agencies, EPA has issued and periodically updates a Multi-Sector General Permit ("MSGP") and associated guidance documents to provide permit coverage for industrial dischargers. *Final 2015 MSGP Documents, U.S.* EPA, https://www.epa.govinpdes/final-2015-msgp-documents. The MSGP provides that dischargers must employ control measures to "divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff to minimize pollutants" in their discharges. U.S. EPA, *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* 18, § 2.1.2.6 (2015). These measures must be specified in

the facility's Storm Water Pollution Prevention Plan ("SWPPP"). *Id.* at 33, § 5.2.4. And they must be described in detail in the discharger's permit application. *See* 40 C.F.R. § 122.26(c).

Detention basins are a typical and widely used example of control measures that capture sediment and other pollutants washed by precipitation runoff from the facility property. Detention basins are designed to impound storm water for a time sufficient for the pollutants to settle out and leave the storm water clean enough to be discharged by pumping the cleaner water near the basin's surface into receiving waters (thus, also creating capacity to contain runoff from the next storm). 3 Michael L. Clar, Billy J. Barfield & Thomas P. O'Connor, *Stormwater Best Management Practice Design Guide: Basin Best Management Practices §* 222 (2004). Detention basins are designed to control precipitation events of a certain size—e.g., the 25-year storm or the 50-year storm. *Id.* at § 2-2. In other words, if a future precipitation event does not exceed the "design storm," the control measure will be sufficient to promote settling of pollutants, and will result in a discharge that meets water quality objectives.

Thus, the CWA authorizes EPA to issue permits authorizing future discharges—both expected discharges based upon approved design criteria (emptying the basin following a smaller storm), and unexpected discharges that

were neither planned for nor intended (overflow from a storm larger than the basin's design basis). Unexpected discharges can occur due to a number of factors beyond the discharger's control, but EPA is not required to deny a permit application because it believes the circumstances that would result in a discharge may be remote.

For storm water permitting, the relevant circumstances include extreme swings between periods of normal-to-heavy precipitation and periods of drought. It is not uncommon for extended periods of time to pass without any discharge pursuant to the discharge authorization granted by a storm water permit. *See generally Drought Monitoring,* National Weather Service, https://www.weather.gov/ilm/drought. Extreme and prolonged drought conditions can leave geographic areas with no precipitation for years, especially in the arid Western and Southwestern regions of the United States. *Id.* If prolonged periods devoid of discharges were to provide a basis for denying applications for renewal of NPDES permits, EPA's Section 402(p) permitting program would be in shambles. Unanticipated storms do occur, and when they do, there will be discharges.

For some years, LANL has occupied a similar situation here. It has designed the evaporation equipment to handle the currently expected volume of wastewater.

The operating principle has been that, if the evaporation equipment operates reliably and continuously, and if the wastewater volume does not increase due to a change in the Laboratory's mission, then Outfall 051 should not be needed. But if the evaporation equipment becomes unavailable due to malfunction or maintenance needs, and/or there is an increase in treatment demands, the LANL would need an authorization to discharge treated wastewater. LANL has made this perfectly clear in its submissions, as the citizen organizations acknowledge. Like the storm water discharger in an arid region, the operating plan has been that LANL might not discharge via Outfall 051 for extended periods, but LANL has consistently sought a permit that specifically authorizes the use of Outfall 051 in anticipation of circumstances that will make a discharge necessary -- a permit that will make that discharge lawful.

In sum, the CWA does not withhold authorization for EPA to permit future discharges in circumstances that, while they may be rare, have been anticipated and stated in the permit application. The citizen organizations' contrary interpretation of the statute should be rejected.

Furthermore, as explained below in Section II.A.1, LANL now envisions a more integral role for Outfall 051 than it has in the past. Whereas the outfall will remain as a back-up alternative when evaporation equipment is unavailable, as

before, the outfall will henceforth be utilized even when evaporation equipment is on line but influent volume is of a magnitude that operational efficiency makes it advisable to rely on both the evaporation equipment and Outfall 051 simultaneously for short or longer-term periods of time.

B. The RLWTF is Exempt From RCRA Permitting Regardless of Whether EPA issues the Permit for Outfall 051.

The citizen organizations also misunderstand the applicable legal requirements in arguing that EPA should not renew the CWA permit because EPA's issuance of the permit gives effect to the WWTU exemption from RCRA permitting. Comments at 4, 23-24. They point to 40 CFR § 264.1(g)(6), which exempts the tanks and associated ancillary equipment at the RLWTF from the substantive RCRA standards. But they never mention 40 CFR § 270.1(c)(2)(v), which provides that owners and operators of wastewater treatment units "are not required to obtain a RCRA permit." Both section 264 and section 270 contribute to the WWTU exemption, one for substantive RCRA requirements, and one for RCRA permitting. Both provisions point to section 260.10 for the definition of a "wastewater treatment unit." The key element of that definition is that such a unit must be "subject to regulation under either section 402 or 307(b)" of the Clean Water Act. 40 CFR § 260.10.

EPA has a long standing and consistent interpretation of what is meant by this definition in its regulation. Nearly 30 years ago, EPA's Office of Solid Waste and Emergency Response (OSWER) issued an official directive addressing the issue. Exemption from Permitting Requirements for Waste Water Treatment Units, OSWER 9522.1992(01), 1992 WL 754630 (January 16, 1992) (ATTACHMENT A). OSWER emphasized that:

> It is important to note that it is not necessary that the Clean Water Act permits actually be issued for the units to be eligible for the RCRA exemption; it is sufficient that the facility be subject to the requirements of the Clean Water Act.

Id. at 1. Explaining further, OSWER made clear that "subject to regulation under Section 402" of the CWA covers facilities "which are permitted, were ever permitted, or should have been permitted under NPDES." Id.

OSWER went further, moreover, in explaining the exemption's applicability to so-called "zero discharge" facilities:

> With regard to the question of a "zero discharge" facility, EPA would like to clarify the difference between a facility that produces no treated wastewater as a direct result of Clean Water Act requirements and units that are not required to obtain an NPDES permit because they do not discharge treated effluent. In the first case, the facility would have had a surface water discharge at one time, but has since eliminated the discharge as a result of, or by exceeding, NPDES or pretreatment requirements. Such facility would qualify for the waste water

> treatment unit exemption under RCRA. In the second case, the facility never had a surface water discharge, and therefore was never subject to NPDES permitting or Clean Water Act requirements. The RCRA exemption is not available in these cases.

Id. at 2.

The Agency's directive settles the question of whether the RLWTF is exempt from RCRA permitting under 40 CFR §§ 270.1 and 260.10. Because LANL has held an NPDES permit for Outfall 051 in the past, and clearly was required to do so, the directive concludes that the exemption applies. And if, as the citizen organizations erroneously maintain, the RLWTF has "eliminated" its discharge by employing treatment technology (evaporation equipment) that meets or exceeds NPDES requirements, then the directive deems it a "zero discharge" facility, and it likewise is entitled to the exemption.

As the citizen organizations point out, in the past LANL also had erroneously assumed that continuous renewal of the NPDES permit for Outfall 051 was necessary in order for the WWTU exemption to apply. Comments at 5-7. LANL was mistaken then, just as the citizen organizations are mistaken now.

II. The Citizen Organizations' Comments Are Replete With Material Errors.

Finally, the discussion below addresses a number of factual errors and misconceptions in the citizen organizations' Comments that bear on LANL's use

of other outfalls, LANL's flow estimates for Outfall 051, and statements lifted from prior LANL submissions to EPA.

A. Facts Concerning Discharges From LANL Outfalls.

The citizen organizations' Comments contain numerous factual errors in describing discharges from various LANL outfalls. Those errors are corrected in the discussion below.

1. Outfall 051. The Comments state that, since 2010, LANL has made only a single discharge, on June 18, 2019, from Outfall 051. See, e.g., Comments at 4, 18. That is incorrect. LANL has discharged from Outfall 051 on June 18, 2019, March 10, 2020, and August 18, 2020. These discharges are documented in Discharge Monitoring Reports (DMRs) submitted to EPA. The citizen organizations' error may be due to their misplaced reliance on quarterly reports submitted to the New Mexico Environment Department (NMED) Ground Water Quality Bureau, which does not have jurisdiction over discharges to surface waters, rather than the DMRs LANL has submitted to EPA, which does.

The discharges in March and August of 2020 are especially noteworthy. As the citizen organizations acknowledge, LANL has made it clear that Outfall 051 is needed, and will be used, when necessary because the evaporation equipment is unavailable or when increased treatment needs arise that would not be handled in

the most efficient manner by utilizing the evaporation equipment alone. Comments at 12. Since the solar evaporation tanks are not in service, the key equipment is the mechanical evaporator. On March 10, 2020, LANL discharged via Outfall 051 because influent volumes made that advisable even though the mechanical evaporator was in service. On August 18, 2020, LANL utilized Outfall 051 because the mechanical evaporator was down for maintenance, including maintenance on the burners. Thus, Outfall 051 is being used precisely as LANL has said it would be – as a back-up or supplemental alternative when circumstances require. Had Outfall 051 not been permitted to discharge on those dates, LANL would have encountered a choice of either violating the CWA or curtailing operations at one of DOE's most important laboratories.

The citizen organizations are plainly wrong in their repeated assertion that such events are "highly unlikely," see Comments at 20. Discharges from Outfall 051 are not merely events that "could occur." See Comments at 15. These discharges have occurred in the recent past, and they will occur as required by operations in the future, within the limits allowed by the permit.

In this regard, we note that LANL has recently adjusted its wastewater treatment operational plan so as to utilize Outfall 051 as an integral component of its operations, rather than solely as a backup, and discharges from the outfall are

expected to be more routine and frequent in the future. As explained in the Affidavit of Stuart A. McKernan, Facility Operations Director at LANL (ATTACHMENT B), with the evaporation tanks not in service, there will be occasions on which influent to the RLWTF will be significant enough that LANL will choose to use both the mechanical evaporator and Outfall 051 simultaneously. Outfall 051 thus provides both operational flexibility and back-up capability.

2. Outfall 13S. The Comments assert that "Outfall 13S did not discharge between October 2014 and September 2018 and analytical results were taken from operational flows." This statement misrepresents the information provided in the 2019 NPDES Permit Re-Application. Outfall 13S is associated with the LANL sanitary wastewater system (SWWS) treatment facility. This facility and Outfall 13S are located at a lower elevation than all of the other outfalls at LANL, and the 2019 Permit NPDES Permit Re-Application clearly states that treated effluent from the SWWS can be discharged to Outfall 13S or pumped to the Power Plant Reuse Tank (located at a higher elevation). Treated SWWS effluent that is pumped to the Power Plant Reuse Tank is either discharged to Outfall 001 or treated for reuse at the Sanitary Effluent Reclamation Facility (SERF). Outfall 13S is routinely maintained, has an automatic flow meter, automatic sampler, and is fully capable of receiving SWWS treated effluent based upon demand, volume, and availability

of equipment to pump, store, discharge, and/or treat using facilities and equipment located at an elevation that is much higher than SWWS. The outfall provides operational flexibility for maintenance, repair, and replacement of equipment (i.e., pumps, SERF, Reuse Tank, Outfall 001) and serves as a critical backup should LANL be unable to pump to a higher elevation due to equipment failure or an increase in treated effluent volume. The analytical data provided on the 2019 NPDES Permit Re-Application Form 2C were from recently collected representative samples of the SWWS effluent before it was pumped to the Power Plant Reuse Tank or SWWS de-chlorination for discharge to Outfall 13S. The samples were collected on September 19-20, 2018 and February 22, 2019 (13S Fact Sheet Section 5.1).

3. **Outfall 03A027.** The Comments assert that "Outfall 03A027 did not discharge from September 2016 to at least May 2019, so older monitoring data was submitted." Comments at 20, (quoting from 03A027 LANL Fact Sheet). This statement misrepresents the information provided in the 2019 NPDES Permit Re-Application. Outfall 03A027 is located approximately 30 feet downstream from Outfall 001 and continues to be capable of receiving SCC Cooling Tower blowdown discharges. In September 2016, the valving on the blowdown line was modified to allow discharge to Outfall 03A027, Outfall 001, the Reuse Tank at the

Power Plant for recycle at SERF, or the SWWS treatment plant (03A160 Fact Sheet Section 2.2 and Attachment B) based upon demand, volume, and outfall/equipment availability. The 2019 NPDES Permit Re-Application Form 2C included analytical data from DMR submittals and representative samples collected on August 29, 2018 and February 4, 2019 from a sample port on the SCC Cooling Tower blowdown line (03A160 Fact Sheet Section 5.1).

4. **Outfall 03A113.** The Comments assert that LANL does not discharge or propose to discharge from Outfall 03A113. Comments at 20-21. This conclusion apparently was derived from a statement in the Fact Sheet explaining that the cooling towers served by this outfall are not currently in use. Id. at 21. The Comments misrepresent the information provided in the 2019 NPDES Permit Re-Application. Outfall 03A113 receives stormwater and cooling tower blowdown from TA-53-293 and TA-53-952 (Fact Sheet Attachment B). The TA-53-952 cooling tower discharges routinely to the outfall as shown in Fact Sheet Attachment D and the various Discharge Monitoring Reports Submitted for the current permit term of October 2014 - Present. The outfall discharged 529,234 gallons in 2017, 436,400 gallons in 2018, 198,530 gallons in 2019, and 154,390 gallons as of October 30, 2020. Cooling Tower TA-53-293 is in operational

standby and is currently not discharging to the outfall, but the permit application proposes this as a future discharge source to the outfall.

5. Outfall 03A160. The Comments erroneously assert that LANL does not propose to discharge from this outfall. Id. at 20-21. The statement from the Fact Sheet quoted by the citizen organizations plainly states that LANL intends to discharge from this outfall if an operational upset prevents the discharge of cooling water to the SWWS. The cooling tower blowdown discharged to Outfall 03A160 was routed to SWWS in May of 2018 to support the recycling of water through the SERF facility and to allow the NHMFL to construct a water treatment system and perform rehabilitation of the cooling system (i.e., replace heat exchangers, tank cleaning, tank integrity testing). The 2019 NPDES Permit Re-Application proposed discharges to that outfall based upon historical data and the use of the outfall as an operational backup. The proposed water treatment system mentioned in the permit and the cooling system rehabilitation were completed in the summer of 2020. A representative sample of the cooling tower blowdown was recently collected, and those supplemental data were provided as an attachment to the Triad Comments on the Draft Industrial and Sanitary Wastewater NPDES Permit No. NM0028355 published for public comment on November 30, 2019.

6. Outfall 05A055. The Comments assert that Outfall 05A055 did not discharge between October 2014 and September 2018; that it has not discharged since November 2007, and that the analytical results were taken from operational flows. These statements misrepresent the information provided in the 2019 NPDES Permit Re-Application. Outfall 05A055 is associated with the High Explosives Waste Water Treatment Facility (HEWTF) and is located in a remote part of LANL. The 2019 NPDES Permit Re-Application clearly states "The treatment process is designed to circulate the wastewater through the process multiple times prior to storage in the post treatment tanks and discharge to either electric evaporators or to Outfall 05A055" (05A055 Fact Sheet Section 2.2.). Outfall 05A055 is fully capable of receiving treated HEWTF effluent based upon demand, volume, and availability of evaporation equipment. The outfall provides operational flexibility for maintenance, repair and replacement of equipment (i.e., evaporator), and serves as a critical backup should LANL be unable to evaporate effluent. There will be occasions when the volume of effluent or equipment availability (i.e., evaporator) will require discharge to Outfall 05A055. This is demonstrated in the discharge monitoring reports submitted to the EPA for previous discharges to the outfall. The 2019 NPDES Permit Re-Application Form 2C included analytical data from representative samples of the effluent that were

collected on September 26, 2018 and January 24, 2019 (05A055 Fact Sheet Section 5.1).

B. Renewal Application Flow Estimates.

The citizen organizations' Comments assert that LANL's estimates of average and maximum flow rates at Outfall 051 "are inaccurate and are misstatements, since discharges from Outfall 051 ended in 2010 (with a single exception, termed an operational readiness discharge)." Comments at 18. As demonstrated by the discussion above, the premise of this assertion – that discharges from Outfall 051 ended in 2010 – is incorrect. The flow-rate estimates are correct; the 2019 NPDES Permit Re-Application provided volumes and frequencies on Form 2C Section II.C that were estimated based upon the total capacity of the two treated effluent tanks (20,000 gallons) at the RLWTF and a proposed operational scenario where one or both of those tanks discharged four days a week and 12 months a year. The proposed discharge volume, therefore, was an estimated average volume of 20,000 gallons/day or an estimated maximum volume of 40,000 gallons/day.

C. Misplaced Reliance on Documents Associated With Prior Permits.

The citizen organizations' Comments make extensive references to snippets of language from LANL submissions and associated documents dating back decades,

and they emphasize the fact that LANL requested that some of its prior submissions be considered part of the 2019 re-application due to the complex nature of the NPDES Permit Re-Application and potential need for supplemental information. Comments at 19. In seeking to ensure that all available data are accessible to EPA, LANL obviously did not intend for the Agency to rely on outdated or inaccurate information where more recent data are available. Information submitted in connection with the 2019 Re-Application supersedes the data provided in previous applications to the extent there is conflict and/or overlap.

ATTACHMENT A

TO LANL SUPPLEMENTAL INFORMATION

OSWER Directive, OSWER 9522.1992(01) (1992)

OSWER 9522.1992(01), 1992 WL 754630

Environmental Protection Agency

Office of Solid Waste and Emergency Response
OSWER Directive

?? 16, 1992

***1** Mr. Thomas W. Cervino, P.E.
Colonial Pipeline Company
Lenox Towers
3390 Peachtree Road, N.E.
Atlanta, GA 30326

Dear Mr. Cervino:
This letter is in response to your August 9, 1991 correspondence requesting a clarification of the conditions under which waste water treatment units qualify for an exemption from RCRA permitting requirements. In your letter you explained that Colonial Pipeline Company has several locations that generate waste waters that are hazardous under the toxicity characteristic, and you asked whether a RCRA permit would be required for a new treatment unit that you are considering.

The primary reason for the waste water treatment exemption is to avoid imposing duplicative requirements pursuant to both a NPDES permit and a RCRA permit for the same unit. As you are aware, in order for a unit to qualify for this exemption contained in 40 CFR §264.1(g)(6), it must:
(1) Be part of a waste water treatment facility that is subject to regulation under either Section 402 or 307(b) of the Clean Water Act;

(2) Receive, treat, or store influent wastewater; or generate, accumulate, treat, or store a wastewater treatment sludge; and,

(3) Meet the definition of tank or tank system in 40 CFR §260.10.

The main question that you raised concerns the first criteria; i.e., which units are considered subject to the Clean Water Act. As you are aware, the Agency provided some discussion of this requirement in 53 FR 34080 (September 2, 1988) which states that: "the wastewater treatment unit exemption is intended to cover only tank systems that are part of a wastewater treatment facility that (1) produces a treated wastewater effluent which is discharged into surface waters or into a POTW sewer system and therefore is subject to the NPDES or pretreatment requirements of the Clean Water Act, or (2) produces no treated wastewater effluent as a direct result of such requirements".

It is important to note that it is not necessary that the Clean Water Act permits actually be issued for the units to be eligible for the RCRA exemption; it is sufficient that the facility be subject to the requirements of the Clean Water Act.

Based on a review of the information provided, EPA has determined that any of the treatment systems (including the proposed treatment unit) at the Colonial Pipeline facilities which are currently permitted, were ever permitted, or should have been permitted under NPDES, all meet the first test of the Section 264.1(g)(6) exemption. The key issue is whether the treatment system ever had a discharge to surface water, and thus was ever permitted (or should have been permitted) under NPDES. If there was never a discharge to surface waters, then the exemption criteria is not satisfied. You also mentioned that some of your facilities employ waste water treatment systems which are regulated in accordance with other applicable state laws, rules, and regulations. Without more specific information regarding these state requirements and permits, EPA cannot address whether

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these facilities would qualify for the exemption. However, as discussed above, the exemption in the federal regulations would only be available if the state requirements stem from the identified sections of the Clean Water Act.

***2** With regard to the question of a "zero discharge" facility, EPA would like to clarify the difference between a facility that produces no treated wastewater as a direct result of Clean Water Act requirements and units that are not required to obtain an NPDES permit because they do not discharge treated effluent. In the first case, the facility would have had a surface water discharge at one time, but has since eliminated the discharge as a result of, or by exceeding, NPDES or pretreatment requirements. Such facility would qualify for the waste water treatment unit exemption under RCRA. In the second case, the facility never had a surface water discharge, and therefore was never subject to NPDES permitting or clean Water Act requirements (53 FR 34080). The RCRA exemption is not available in these cases. (We should point out that the language you referred to on Page 2 of the May 22, 1984 memo on zero discharge has been further refined and clarified by recent program policies and interpretations.)

There is another management option that my staff has discussed with you on the phone. That approach would be to treat your waste water in tank units pursuant to the generator accumulation exemption of 40 CFR §262.34. This provision allows generators of hazardous wastes to treat or store such wastes in tanks or containers for short periods of time (i.e., 90 days) without obtaining a RCRA permit, provided that all the conditions of §262.34 are met, including compliance with specified tank or container standards in 40 CFR Part 265. In many cases air strippers may be considered tank units under RCRA and might be eligible for this exemption. Of course, as long as the treated waste water meets a hazardous waste listing description or exhibits a hazardous waste characteristic it must continue to be managed as a hazardous waste.

If you have facility-specific questions, please contact individuals in the appropriate EPA Regional Offices. For Region III (Philadelphia), contact Ms. Susan Sciarratia at (215) 597-7259 and for Region IV (Atlanta), contact Ms. Beth Antley at (404) 347-3433. Should you have further questions about this letter, please contact Glenn Strahs of my staff at (202) 260-4782.
Sincerely,

Sylvia K. Lowrance
Director
Office of Solid Waste

cc:

Kathy Nam, OGC

EPA RCRA Branch Chiefs, Regions I-X

Barbara Simcoe, ASTSWMO

OSWER 9522.1992(01), 1992 WL 754630

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ATTACHMENT B

TO LANL SUPPLEMENTAL INFORMATION

Affidavit of Stuart A. McKernan
Triad National Security LLC
Los Alamos National Laboratory

AFFIDAVIT OF STUART A. MCKERNAN

1. I, Stuart A. McKernan, am an employee of Triad National Security, LLC (Triad) at Los Alamos National Laboratory (LANL or the Laboratory). I have been employed at LANL since 1998.

2. I am currently employed as the Facility Operations Director (FOD) for nuclear and support facilities at LANL Technical Areas (TA) 03, 50, 55, and 63. I have served in this capacity for approximately nine months. Before taking this position, I was the Deputy Facility Operations Director (DFOD) at these facilities for the previous 12 years. My other laboratory experience has been in Operations, Safety Basis, and Engineering at TA-55, one of the primary generator sites supported by the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF).

3. As a FOD, I am responsible for managing and overseeing operations at the TA-50 RLWTF. I am responsible and accountable for facility-related engineering, maintenance, and treatment operations, as well as RLWTF safety, environmental, and waste services.

4. I am familiar with Outfall 051 located at RLWTF. The Laboratory has been operating the RLWTF under NPDES Permit #NM0028355 (NPDES Permit) since 1978. The permit is issued by the U.S. Environmental Protection Agency (EPA) to the U.S. Department of Energy (DOE) and Triad as co-permittees for LANL. The NPDES Permit authorizes the Laboratory to discharge from eleven (11) sanitary and/or industrial outfalls, including the discharge of treated radioactive liquid wastewater from the RLWTF through Outfall 051 into Effluent Canyon, a tributary to Mortandad Canyon. The NPDES Permit has been renewed multiple times and the last permit was re-issued on August 12, 2014. The last renewal application was submitted on March 26, 2019.

5. RLWTF is a mission-critical facility that treats low-level and transuranic liquid wastewater from processes at generator facilities throughout the Laboratory. The Laboratory is authorized under the NPDES Permit to discharge wastewater from the facility through Outfall 051, the Mechanical Evaporator System (MES), and/or the Solar Evaporation Tanks (SET). All three discharge options are available for use as needed to support RLWTF operations. Outfall 051 is an integral component of RLWTF, and is required to maintain operational flexibility and readiness to meet the Laboratory's mission demands. Outfall 051 is not used only as a back-up, but also has been and will be used routinely in conjunction with the MES to support the Laboratory's operational priorities, such as when influent to the RLWTF makes such use advisable, and to confirm operability. In addition, as in the past, Outfall 051 will remain available in the event the MES is taken out of service for repair, replacement, or maintenance. Outfall 051 is especially critical due to the fact that the SET is not currently available for use.

6. Due to COVID-19 concerns, I am unable to meet a notary in person to have this Affidavit notarized. All of the information above is true, accurate, and complete.

FURTHER AFFIANT SAYETH NAUGHT.

Date: December 7, 2020

STUART MCKERNAN (Affiliate)

Digitally signed by STUART MCKERNAN (Affiliate)
Date: 2020.12.07 15:30:11 -07'00'

Stuart A. McKernan

EXHIBIT G

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE REGION SIX REGIONAL ADMINISTRATOR

In the matter of:

CONCERNED CITIZENS FOR
NUCLEAR SAFETY,
HONOR OUR PUEBLO EXISTENCE, AND
NEW MEXICO ACEQUIA ASSOCIATION:
COMMENTS ON PROPOSED
RENEWAL OF NPDES PERMIT
NM 0028355 FOR LOS ALAMOS
NATIONAL LABORATORY,
RADIOACTIVE LIQUID WASTE
TREATMENT FACILITY

SUPPLEMENTAL COMMENTS OF CONCERNED CITIZENS FOR NUCLEAR SAFETY, HONOR OUR PUEBLO EXISTENCE, AND NEW MEXICO ACEQUIA ASSOCIATION ON PROPOSED RENEWAL OF NPDES PERMIT # NM0028355

These supplemental comments on the proposed renewal of National Pollutant Discharge Elimination System ("NPDES") Permit No. NM0028355 are filed on behalf of Concerned Citizens for Nuclear Safety ("CCNS"), Honor Our Pueblo Existence ("H.O.P.E."), and the New Mexico Acequia Association ("NMAA") (collectively, "Citizens").

1. The Department of Energy ("DOE") has filed supplemental arguments (Feb. 25, 2021) ("Supp.") in pursuit of renewal of an NPDES permit for Outfall

051 at the Radioactive Liquid Waste Treatment Facility ("RLWTF"). These materials state DOE's current intentions as to the operation of that facility.

2. As is detailed in Citizens' Comments (Oct. 15, 2020), DOE adopted a "zero liquid discharge" program at the RLWTF in 1998 and carried out that program by installing mechanical evaporator equipment in about 2010 and constructing solar evaporation "tanks" in 2012. The tanks are still undergoing permitting. Despite the successful program to eliminate discharges, DOE seeks a renewed Clean Water Act, 33 U.S.C. § 1251 *et seq.* ("CWA"), permit under the NPDES, 33 U.S.C. § 1342.

3. The NPDES statute authorizes EPA to issue a permit for a "discharge," and DOE is correct that the statutory and regulatory references to discharges are "forward-looking." (Supp. 3). As to its intentions, DOE has stated that it seeks a permit for the RLWTF's Outfall 051 for the purpose of discharging *if* the evaporation equipment is out of service or the quantity of wastewater is such that additional disposal methods, beyond the evaporation units, are required. DOE states:

> The operating principle has been that, if the evaporation equipment operates reliably and continuously, and if the wastewater volume does not increase due to a change in the Laboratory's mission, then Outfall 051 should not be needed.

(Supp. 13. See also Supp. 3, 8; Citizen Comments, ¶ 37-41). In its supplemental comments, DOE adds only that it plans to operate Outfall 051 in an "integral" manner (Supp. 13, "integral role," 18, "integral component") with the evaporation equipment. DOE does not explain this statement, but it clearly does not amount to a plan or proposal actually to discharge via the outfall in the future. DOE offers no commitment to use the outfall at any particular time or for discharge of any particular amount of wastewater or pollutants.

4. In a Notice of Planned Change (Feb. 25, 2021), filed with the supplemental comments, DOE substitutes new data concerning the volume of possible discharges from Outfall 051 for the "estimates" previously provided. The previous "estimates" expressed only the quantity of discharges that is theoretically possible—not planned or proposed. The latest figures, derived from a discharge made in 2020, do not represent a quantity that DOE plans or proposes to discharge in the future. DOE's position remains that it wishes to discharge via Outfall 051 only *if* the evaporation equipment is unavailable or its needs to discharge wastewater change. In proceedings held by the State of New Mexico, testimony from two expert witnesses has established that the occurrence of such circumstances is "highly unlikely." (Ex. AAA to Citizens' Comments).

5. The Clean Water Act authorizes EPA only to issue a NPDES permit for a "discharge." 33 U.S.C. § 1342(a). DOE argues that its stated intention to

discharge only if certain conditions occur—*i.e.*, when and if evaporation equipment is unavailable or additional capacity is needed, if ever—is sufficient to support a NPDES permit. DOE also contends that, if it obtains a NPDES permit for Outfall 051, it would then be entitled to the Wastewater treatment unit exemption, 42 U.S.C. § 6903(27); 40 C.F.R. § 260.10 (*Tank system, Wastewater treatment unit*); § 264.1(g)(6), from hazardous waste regulation under the Resource Conservation and Recovery Act, 42 U.S.C. § 6921 *et seq.* ("RCRA"), for the entire RLWTF. DOE is in error on both issues.

6. DOE's argument is presented entirely without reference to the applicable statute and regulations, which control here. Under the CWA, EPA's *only* authority to grant a NPDES permit is § 1342, which authorizes EPA to issue a permit *only* for the "discharge of any pollutant, or combination of pollutants." 33 U.S.C. § 1342(a). Numerous decisions have established that the statutory element of a "discharge" is clear under *Chevron 1, Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984), analysis and is not met by anything less. Where there is no discharge, EPA has no authority to issue a permit. Recent cases are *Waterkeeper Alliance, Inc. v. U.S. EPA*, 399 F.3d 486 (2d Cir. 2005), and *National Pork Producers Council v. U.S. EPA*, 635 F.3d 738 (5th Cir. 2011). In unambiguous language, *Waterkeeper* states that the CWA requires a discharge to support an NPDES permit:

> Congress left little room for doubt about the meaning of the term "discharge of any pollutant." The Act expressly defines the term to mean "(A) any addition of any pollutant to navigable waters from any point source, [or] (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." 33 U.S.C. § 1362(12). Thus, in the absence of an actual addition of any pollutant to navigable waters from any point, there is no point source discharge, no statutory violation, no statutory obligation of point sources to comply with EPA regulations for point source discharges, and no statutory obligation of point sources to seek or obtain an NPDES permit in the first instance.

Waterkeeper, 399 F.3d at 504-05. The Second Circuit emphasized that its decision was based on *Chevron 1* analysis:

> For all these reasons, we believe that the Clean Water Act, on its face, prevents the EPA from imposing, upon CAFOs [concentrated animal feeding operations], the obligation to seek an NPDES permit or otherwise demonstrate that they have no potential to discharge. *See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 842-43, 81 L. Ed. 2d 694, 104 S. Ct. 2778 (1984) (where Congress has "directly spoken to the precise question at issue" and "the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.").

Id. 506 (*footnote omitted*).

7. DOE asserts that *Waterkeeper* holds only that EPA may not require an NPDES *application* from a non-discharging entity. (Supp. 5). However, the decision is emphatic that a person who has only an asserted "potential" to discharge—as DOE claims the RLWTF does—is not subject to the CWA:

> The CAFO Rule violates this statutory scheme. It imposes obligations on all CAFOs regardless of whether or not they have, in fact, added any pollutants to the navigable waters, *i.e.,* discharged any pollutants.

> After all, the Rule demands that every CAFO owner or operator either apply for a permit - and comply with the effluent limitations contained in the permit - or affirmatively demonstrate that no permit is needed because there is "no potential to discharge." *See* 40 C.F.R. §§ 122.23(d) and (f). In the EPA's view, such demands are appropriate because all CAFOs have the *potential* to discharge pollutants. *See* Preamble to the Final Rule at 7202 ("The 'duty to apply' provision is based on the presumption that every CAFO has a potential to discharge."). While we appreciate the policy considerations underlying the EPA's approach in the CAFO Rule, however, we are without authority to permit it because it contravenes the regulatory scheme enacted by Congress; the Clean Water Act gives the EPA jurisdiction to regulate and control only *actual* discharges - not potential discharges, and certainly not point sources themselves. *See National Resources Defense Council v. EPA*, 273 U.S. App. D.C. 180, 859 F.2d 156, 170 (D.C. Cir. 1988) (noting that "the [Act] does not empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants"). To the extent that policy considerations do warrant changing the statutory scheme, "such considerations address themselves to Congress, not to the courts." *MCI Telecomms. Corp. v. AT&T Co.,* 512 U.S. 218, 234, 129 L. Ed. 2d 182, 114 S. Ct. 2223 (1994) (citation omitted).

Waterkeeper, 399 F.3d at 505.

8. In *National Pork,* the Fifth Circuit concurred with the Second Circuit's reasoning and decision:

> The Second Circuit's decision is clear: without a discharge, the EPA has no authority and there can be no duty to apply for a permit.
>
> * * *
>
> Because the issues presented in *Waterkeeper* are similar to the issues presented here, we find the Second Circuit's analysis to be instructive and persuasive. Accordingly, we decline to uphold the EPA's requirement that CAFOs that propose to discharge apply for an NPDES permit.

National Pork, 635 F.3d at 750. In *Waterkeeper* and *National Pork* EPA did not seek certiorari to challenge the court of appeals rulings and instead withdrew the contested regulations. EPA, Revised Regulation in Response to Waterkeeper Decision, 71 Fed. Reg. 37744 (June 30, 2006); EPA, Removal of Vacated Elements in Response to 2011 Court Decision, 77 Fed. Reg. 44494 (July 30, 2012). EPA stated publicly that a non-discharging facility is outside its regulatory reach:

> The EPA accepts the decision of the Court that vacated the requirement that CAFOs that propose to discharge apply for NPDES permits and the EPA lacks the discretion to reach a different conclusion.

77 Fed. Reg. 44494, 4496.

9. DOE contends that *Waterkeeper* and *National Pork* "had nothing to do with EPA's authority to issue CWA permits, but focused instead on EPA's lack of authority to require persons to *apply for permits in the absence of actual pollutant discharges*—as if the questions were unrelated. Obviously, they are not unrelated, as those cases expressly state. Both decisions hold that EPA cannot lawfully issue a CWA permit for a so-called "potential" discharge, and therefore EPA cannot demand a permit application for a "potential" discharge.

10. These court of appeals decisions follow the *Chevron 1* principle that, if a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law

and must be given effect. *Chevron,* 467 U.S. at 843 n.9. *See also INS v. Cardoza-Fonseca*, 480 U.S. 421, 447 (1987).

11. The Supreme Court has elaborated concerning the clear language of 33 U.S.C. § 1342(a):

> The triggering statutory term here is not the word 'discharge' alone, but 'discharge of a pollutant,' a phrase made narrower by its specific definition requiring an 'addition' of a pollutant to the water. § 1362(12).

S.D. Warren Co. v. Maine Board of Environmental Protection, 547 U.S. 370, 381-82 (2006). *National Wildlife Federation v. Gorsuch,* 693 F.2d 156, 165 (D.C. Cir. 1982), accordingly holds that

> to require NPDES permits, five elements must be present (1) a *pollutant* must be (2) *added* (3) *to navigable waters* (4) *from* (5) a *point source.*

National Wildlife Federation v. Consumers Power Co., 862 F.2d 580 (D.C. Cir. 1988), restates the same principles. *Id.* at 583. As the Tenth Circuit has stated:

> The CWA sets forth guidelines for the NPDES permits for the discharge of pollutants in Section 402, 33 U.S.C. § 1342. To establish a violation of these sections, a plaintiff must prove that the defendant (1) discharged (2) a pollutant (3) into navigable waters (4) from a point source (5) without a permit.

Sierra Club v. El Paso Gold Mines, 421 F.3d 1133, 1141-1142 (10th Cir. 2005). Further, In re *Lowell Vos*, 2009 EPA ALJ Lexis 8 (2009), states that "EPA agrees that it cannot require one to obtain an NPDES permit on the basis of a mere potential to discharge." *Id.* at *63.

12. In addition, the CWA requires permits issued by EPA[1] to be subject to these terms:

> (1) To issue permits which--
>
> * * *
>
> (C) can be terminated or modified for cause including, but not limited to, the following:
>
> * * *
>
> (iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge . . .

33 U.S.C. § 1342(b)(1). Thus, under the CWA, in the event that there is no discharge, the permit is subject to termination.

13. Regulatory exclusions from the requirement of a permit for a discharge cannot stand. *See, e.g.*, *National Cotton Council v. U.S. EPA*, 553 F.3d 927 (6th Cir. 2009) (regulatory exclusion for pesticides applied in accordance with Federal Insecticide, Fungicide, and Rodenticide Act held in conflict with CWA); *Northwest Environmental Advocates v. U.S. EPA,* 537 F.3d 1006 (9th Cir. 2008) (exclusion for ship discharges held in conflict with CWA); *Northern Plains Research Council v. Fidelity Exploration and Development Co.*, 325 F.3d 1155 (9th Cir. 2003) (exemption for disposal of produced water held preempted by CWA); *League of Wilderness Defenders v. Forsgren*, 309 F.3d 1181 (9th Cir. 2001) (EPA lacks authority to exempt point source from permit requirement); *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d 1369, 1377 (D.C. Cir.

[1] The quoted language refers to authorized state programs. Under § 1342(a)(3), EPA's federal program must contain the same requirements.

1977) (exclusions for silvicultural, various animal feeding operations, and other operations held unauthorized).

14. The reviewing court in each case held the CWA unambiguous and, therefore, its analysis invoked *Chevron 1*: "The Clean Water Act is not ambiguous. Further, it is a fundamental precept of this Court that we interpret unambiguous expressions of Congressional will as written." *National Cotton Council*, 553 F.3d at 929. "The text of the statute clearly covers the discharge at issue here." *Northwest Environmental Advocates*, 553 F.3d at 1021. "The reasons for our conclusion are apparent from the statute's terms." *Northern Plains Research Council*, 325 F.3d at 1160. "The Forest Service's argument fails because the statute is clear and unambiguous." *League of Wilderness Defenders*, 309 F.3d at 1185. "The wording of the statute, legislative history, and precedents are clear. . . . We find a plain Congressional intent to require permits in any situation of pollution from point sources." *Natural Resources Defense Council, Inc. v. Costle*, 568 F.2d at 1377, 1383.

15. If the CWA had left any room for doubt, *Chevron 2* analysis shows that DOE's argument is not a "permissible" reading of the statute. Where statutory language is ambiguous, the Court may "turn to the relevant regulatory definition in understanding the statutory meaning of [the] term." *Dalzell v. RP Steamboat Springs, LLC*, 781 F.3d 1201, 1209 (10th Cir. 2015). In *Seneca-Cayuga Tribe of*

Oklahoma v. National Indian Gaming Commission, 327 F.3d 1019 (10th Cir. 2003), the court pointed out that the responsible agency's regulations offer important guidance as to the meaning of ambiguous terms, and, if reasonable, may be considered controlling:

> [C]onsiderable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer, and the principles of deference to administrative interpretations . . . consistently followed . . . whenever decision as to the meaning or reach of a statute [] involves reconciling conflicting policies, and a full understanding of the force of the statutory policy in the given situation [] depends upon more than ordinary knowledge respecting the matters subjected to agency regulations.

Seneca-Cayuga Tribe, 327 F.3d at 1036. Thus, deference to an agency's regulations rests upon "the notion that the 'rule-making process bears some resemblance to the legislative process and serves to temper the resultant rules such that they are likely to withstand vigorous scrutiny.'" *Id.* at 1036. Finding the regulation a reasonable construction, the Court stated that "we therefore accord it 'controlling weight'." *United States v. 162 Megamania Gambling Devices,* 231 F.3d 713, 718-19 (*quoting Chevron*, 467 U.S. at 842-44); *see also Seneca-Cayuga Tribe, supra*, at 1040, 1043.

16. Here, EPA's regulations offer a clarifying construction. EPA is authorized to "prescribe such regulations as are necessary to carry out the functions under this Act." 33 U.S.C. § 1361(a). Under 40 C.F.R. § 122.21, a person who "discharges or proposes to discharge" a pollutant has a "duty to apply"—thus, a

statutory requirement—to obtain an NPDES permit. To "propose" is to purpose, plan or intend. Webster's New World Dictionary, 2d ed. Other regulatory language makes plain that a proposed discharge is one that is actually planned and thereafter carried out. See 40 C.F.R. § 122.21(c). Thus, one who proposes to discharge actually intends to do so; the proposal is not a hypothetical prospect, nor speculation about the possibility of a future discharge in prospective conditions; such would fall outside "the bounds of reasonable interpretation," *Arlington v. FCC*, 569 U.S. 290, 296 (2013), because it would reduce what Congress enacted as a clear limit upon permit issuance to an unverifiable and meaningless product of the imagination.

17. For such reasons the additional five outfalls that DOE seeks to include in a CWA permit, but which do not currently discharge nor propose to discharge, cannot lawfully be permitted under 33 U.S.C. § 1342. The CWA does not regulate an outfall that serves only as a backup or potential discharge point, for use if certain conditions are met. The CWA regulates only an outfall that actually discharges or proposes to discharge.[2]

[2] Thus, the listed discharge points do not come within 33 U.S.C. § 1342(a)(1) or 40 C.F.R. § 122.21(a)(1):

1. Outfall 13S: The supplemental comments state that this outfall "is fully capable of receiving SWWS (Sanitary Wastewater Treatment System) treated effluent based upon demand, volume, and availability of equipment to pump, store, discharge, and/or treat using facilities and equipment located at an elevation that is much higher than SWWS." (Supp. 19 – 20).

However, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. The October 28, 2020 DOE submittal to EPA, titled "NPDES Permit No. NM0028355 Monthly Discharge Monitoring Reports (DMRs) for September 2020, Quarterly DMRs for July 2020 – September 2020, Yearly DMRs for October 2019 – September 2020, and Term DMRs for October 2014 – September 2020," states "No Discharge October 2014 – September 2020," "No discharge to Cañada del Buey," and "No Discharge to Outfall During Monitoring Period." EPC-DO: 20-346, LA-UR 20-28634.

2. Outfall 03A027: This outfall is said to be "capable of receiving SCC Cooling Tower blowdown discharges." (Supp. 20). Again, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE also reported [No Data Indicator Code] NODI=C, meaning there was no discharge from the outfall. The monthly and quarterly DMRs report "The Outfall Pipe capped on 9/9/2016. No Discharge During Monitoring Period." The yearly DMR states, "No Discharge to Outfall 027 this monitoring period." *Id.*
3. Outfall 03A113: The supplemental comments state that the outfall discharged certain amounts in 2017 through 2020, but adds: "Cooling Tower TA-53-293 is in operational standby and is no longer discharging to the outfall, but the permit application proposes this as a future discharge source to the outfall." (Supp. 21 – 22). Once again, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall.
4. Outfall 03A160: The supplemental comments state: "The 2019 NPDES Permit Re-Application proposed discharges to that outfall based upon historical data and the use of the outfall as an operational backup." (Supp. 22). Thus, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE reported, "No Discharge During Monitoring Period," on the monthly, quarterly and yearly DMRs. *Id.*
5. Outfall 05A055: DOE states in its supplemental comments: "The outfall provides operational flexibility for maintenance, repair, and replacement of equipment (i.e., evaporator), and serves as a critical backup should LANL be unable to evaporate effluent." (Supp. 23). Thus, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE reported, "No Discharge During Monitoring Period," on the monthly, quarterly and yearly DMRs. *Id.*

18. DOE also urges that the statutory limits enforced in *Waterkeeper* and *National Pork* must be ignored if the permit applicant *requested* the permit. (Supp. 5). DOE contends that *Waterkeeper* and *National Pork* say nothing about issuance of a NPDES permit to a person who "voluntarily" requests one. (Supp. 5 – 6). That issue was not presented in those cases, because there a NPDES permit was not desired for its exemptive powers; here, it is.

19. But the CWA does not authorize a permit that is "requested" as distinguished from a permit for a "discharge." The statutory limitation to a discharge is a jurisdictional requirement. *Waterkeeper*, 399 F.3d at 505. If DOE's theory is correct—that EPA may issue a NPDES permit to an entity that does not discharge nor propose to discharge, so long as the person requests a permit—then there would be no limitation on EPA's power to issue a permit. (Supp. 5-6). Such a situation would violate the principle that Congress may not delegate legislative authority:

> [I]n *Mistretta v. United States*, 488 U.S. 361 (1989), we revisited the nondelegation doctrine and reaffirmed our longstanding principle that so long as Congress provides an administrative agency with standards guiding its actions such that a court could "ascertain whether the will of Congress has been obeyed," no delegation of legislative authority trenching on the principle of separation of powers has occurred. Id., at 379, quoting *Yakus v. United States*, 321 U.S. 414, 426 (1944). *See American Power & Light Co. v. SEC, supra,* at 105 (It is "constitutionally sufficient if Congress clearly delineates the general policy, the public agency which is to apply it, and the boundaries of this delegated authority. Private rights are protected by access to the

> courts to test the application of the policy in the light of these legislative declarations").

Skinner v. Mid-America Pipeline Co., 490 U.S. 212, 218-19 (1989). Here, Congress delegated to EPA the authority to issue a permit only for a "discharge," not for a possible future discharge that is not planned or expected but only imagined, and certainly not for a person who simply requests a permit for its own convenience. If Congress had authorized EPA to issue a permit on request, a serious question of unconstitutional delegation of authority without standards or policy direction would be presented.

20. Moreover, the concept of a "voluntary" request for a permit cannot stand scrutiny. All permits are requested "voluntarily" in response to an applicant's needs and the prevailing legal provisions. To seek indicia of "voluntariness" in order to uphold an unauthorized permit is a fool's errand and would only encourage the fabrication of permitting history. Once the NPDES permit process begins, the regulatory structure is entirely mandatory. See, *e.g.*, 40 C.F.R. § 122.21(f), (g). The idea that EPA can disregard the statutory limits when an entity "requests" a sought-after permit not only would nullify the CWA's jurisdictional limits but also would introduce profound mischief, *e.g.*, by authorizing EPA to hand out unnecessary CWA permits to non-discharging entities, which permits would carry an exemption from hazardous waste regulation. This malign concept has no source in the law Congress enacted.

21. DOE asserts that the possible need for an immediate discharge supports issuance of a permit "just in case" of an emergency. (Supp. 4). This argument simply ignores the statutory limitation that requires a "discharge." Moreover, here such a need is imaginary. When the RLWTF was reconstructed for zero-liquid-discharge, indoor storage tanks sufficient to hold 300,000 gallons of effluent were installed. RLWTF Closure Plan, DP-1132 (July 2016) at 15 (AR0001597) and Appendix A, Table 7 at 50 (AR0001632). Even if *both* evaporation systems were somehow inoperative, the RLWTF has storage capacity in the solar evaporation tanks sufficient to hold more than seven months of output. Petition to EAB, Ex. 1 (AR0000198) (solar evaporation tank capacity is 754,036 gallons); *see also* Petition to EAB, Ex. 2 (AR0000204) (in 2009 RLWTF discharged 4,401,900 liters or 1,162,859 gallons). Talk of an emergency that compels a sudden discharge is simply a fantasy.

22. Moreover, EPA in construing the CWA must consider the impact of its permitting action upon RCRA coverage. DOE argues (Supp. 16) that a CWA permit for Outfall 051 will confer upon the RLWTF an exemption from RCRA regulation under the Wastewater treatment unit exemption. Such is DOE's evident motive in seeking a permit; thus, DOE seeks to set up a conflict between CWA and RCRA regulation. But EPA is charged with application of both CWA and RCRA. 33 U.S.C. § 1251(d); 42 U.S.C. § 6921. EPA has no authority to "pick and

choose" the federal law that it will apply and, instead, must seek to give effect to both. *Epic Sys. Corp. v. Lewis,* 138 S. Ct. 1612, 1624 (2018); *Morton v. Mancari*, 417 U.S. 535, 551 (1974). EPA must consider the impact of a CWA permit on RCRA enforcement. DOE asks EPA to adopt an incorrect construction of the CWA requirement of a "discharge" that renders both statutes ineffective: The CWA permit would regulate nothing, because there is no discharge, but, by DOE's reading, it would block the RCRA process, thwarting RCRA's preventive purposes. To the contrary, where the CWA has no role to play, EPA should not uselessly expand the supposed jurisdiction of the CWA to bar RCRA from protecting human health and the environment.

23. Citizens do not agree that the Wastewater treatment unit exemption properly should apply to the RLWTF, as DOE contends (Supp. 16), even if a CWA permit were issued for Outfall 051. At present, substantially all of the wastewater from the RLWTF is disposed of by evaporation. The evaporation equipment—both the existing mechanical evaporator and the constructed, but not yet operational, solar evaporation tanks—is entirely *unregulated*, and it would not be regulated in the renewal permit. In contrast, under RCRA, all such equipment would be regulated under a permit. Moreover, contrary to DOE's argument, EPA has issued its opinion letter, discussed below, stating that a facility like the RLWTF is not an exempt Wastewater treatment unit.

24. Specifically, a "Wastewater treatment unit" is defined in 40 C.F.R. § 260.10:

> Wastewater treatment unit means a device which:
> (1) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
> (2) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in § 261.3 of this chapter, . . . and
> (3) Meets the definition of tank or tank system in § 260.10 of this chapter.

EPA explained in issuing the rule in 1988 that the exemption applies to a tank system that is part of a facility that is subject to CWA Section 302 regulation, but does not apply when the tank system is *also* used for a different purpose:

> [A]ny hazardous waste tank system that is used to store or treat the wastewater that is managed at an on-site wastewater treatment facility with a National Pollution Discharge Elimination System (NPDES) permit . . . . is exempt from the RCRA regulations.
>
> * * *
>
> EPA intends that this exemption apply to any tank system that manages hazardous wastewater and is dedicated for use with an on-site wastewater treatment facility. However, if a tank system, in addition to being used in conjunction with an on-site wastewater treatment facility, is used on a routine or occasional basis to store or treat a hazardous wastewater prior to shipment off-site for treatment, storage, or disposal, it is not covered by this exemption.

53 Fed. Reg. 34079, 34080 (Sept. 2, 1988).

25. In 1998, EPA issued an Agency opinion letter concerning a tank system that was used for wastewater treatment in certain months, and used for other purposes for the remainder of the year—just as the RLWTF is used to

dispose of wastewater by evaporation, in addition to potentially using the CWA-permitted outfall. EPA stated that the Wastewater treatment unit exemption does not apply to such a tank system:

> You ask what EPA meant by the language "dedicated" [for use with an on-site wastewater treatment facility] and offer two possible interpretations. One interpretation, you suggest, is that the WWTU must be dedicated solely for wastewater treatment at all times. A second interpretation, you suggest, is an "alternating use" scenario in which a WWTU may operate as a WWTU for a portion of the year, dedicated for wastewater treatment for that period of time in use, and then operate as an accumulation tank for a different part of the year. The Agency confirms the first interpretation, described above. That is, in order to satisfy the WWTU exemption, a tank must be dedicated solely for on-site wastewater treatment at all times and for no other purpose. EPA believes that the preamble language is clear on this point. EPA did not intend the WWTU exemption to apply in situations involving "dual use" of a tank (when a tank is concurrently used for wastewater treatment and for another purpose). Nor did EPA intend for the exemption to apply in situations, such as the one your letter describes, involving "alternating use" of the tank.

Letter, E.A. Cosworth, OSW, to Susan Pendleton, ERM New England, Inc., RO 14262. Reflecting this interpretation, section 4.6 of the current Hazardous Waste Act ("HWA") permit for LANL states that the Wastewater treatment unit exemption shall apply to the RLWTF only if *all* wastewater is discharged through the NPDES-regulated Outfall 051 or as authorized by that NPDES permit:

> The Permittees shall discharge all treated wastewater from the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) through the outfall permitted under Section 402 of the federal Clean Water Act, or as otherwise authorized by the terms of an applicable Clean Water Act permit that regulates the treatment and use of wastewater. If the Permittees intentionally discharge through a location other than the

> permitted outfall or as otherwise authorized, they will fail to comply with this requirement, and as a consequence the wastewater treatment unit exemption under 40 CFR § 264.1(g)(6) will no longer apply to the RLWTF. https://www.env.nm.gov/hazardous-waste/lanl-permit/

Since most of the RLWTF's wastewater is disposed of *not* through Outfall 051 nor pursuant to the NPDES permit, but by evaporation, the exemption does not apply.

26. DOE tells the Agency that the RLWTF is entitled to the Wastewater treatment unit exemption based upon a 1992 EPA opinion letter by S.K Lowrance to T.W. Cervino. (Supp. 15-16). The letter claims exemption of "facilities which are permitted, were ever permitted, or should have been permitted under NPDES," and DOE asserts that such wording means that the RLWTF, which now has a NPDES permit for Outfall 051, is entitled to an exemption, because it was permitted—*i.e.*, "ever." So stating, DOE seeks to stretch the Agency's statements to meet the RLWTF. Certainly, the RLWTF has historically been permitted. But neither the CWA nor its regulations authorize a perpetual permit. In 1998 LANL adopted the "zero-liquid-discharge" program, and the facility was changed and rebuilt; evaporation equipment was installed, and discharges effectively stopped. The fact that a facility was once permitted under the NPDES *but was then changed* to eliminate discharges, and so is *not the same* facility, does not support a new NPDES permit.

27. DOE elaborates upon its theory that EPA's stormwater regulation program somehow proves that EPA may issue a NPDES permit for a non-

discharging facility. DOE states that the stormwater program regulates "episodic" discharges. (Supp. 8 – 9). "Episodic" discharges occur at intervals, and the intervals may be unpredictable. But the point is: there will be actual stormwater discharges in the future, because there will be precipitation, although the weather dictates the timing. The stormwater program addresses the discharges attributable to such precipitation, which are significant. EPA in 1990 offered an assessment of the nature of the stormwater problem:

> The Assessment concluded that pollution from diffuse sources, such as runoff from agricultural, urban areas, construction sites, land disposal and resource extraction, is cited by the States as the leading cause of water quality impairment. These sources appear to be increasingly important contributors of use impairment as discharges of industrial process wastewaters and municipal sewage plants come under increased control and as intensified data collection efforts provide additional information.

EPA, NPDES Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47990, Background and Water Quality Concerns (Nov. 16, 1990). The stormwater program clearly deals with massive discharges of contaminated waters. A very different question is presented by the current permit proposal: Whether a permit may issue where there is no discharge and no plan to discharge at all. The stormwater program offers no guidance on that question.

CONCLUSION

It is not for EPA to break through the jurisdictional limits of the CWA to issue a permit that blocks the application of federal hazardous waste laws to a

facility that admittedly treats and stores hazardous waste, and is required under RCRA to adhere to stringent regulations in the handling of such dangerous substances. The CWA permit for outfalls that have no plan to discharge has no legal basis and should be denied.

Respectfully submitted,

/s/_____

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March 29, 2021

EXHIBIT H

Catholic Charities Gallup: Office of Life, Peace, Justice & Creation,
Nuclear Watch New Mexico, Partnership for Earth Spirituality,
Rocky Mountain Peace and Justice Center,
Tri-Valley CAREs (Communities Against a Radioactive Environment),
Taoseños for Peaceful and Sustainable Futures,
Tewa Women United, Tularosa Basin Downwinders Consortium,
Youth United for Climate Crisis Action (YUCCA)

November 2, 2020

By email: rosborough.evelyn@epa.gov

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency Region 6
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, TX 75270

Re: Public Comment about the draft Industrial Wastewater Discharge Clean Water Act National Pollutant Discharge Elimination System Permit for Los Alamos National Laboratory No. NM0028355

Dear Ms. Rosborough:

Please accept these comments from nine non-governmental organizations about the above-referenced draft National Pollutant Discharge Elimination System (NPDES) Industrial Wastewater Discharge Permit for Los Alamos National Laboratory (LANL). We urge the Environmental Protection Agency (EPA) to remove those facilities from the permit that handle, treat and store hazardous waste, but have no plan or intention to discharge.

We object to LANL asking the EPA to issue a Clean Water Act permit for industrial facilities that have no plan or intention to discharge wastewater to the environment. Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." 33 U.S.C. § 1342(a)(1).

We object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but have no plan or intention to discharge. Such Clean Water Act permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. 42 U.S.C. § 6901 *et seq.* The only reason

to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.

We object to EPA issuing a permit for those LANL facilities that have no plan or intention to discharge, as listed below:

- **Outfall 051 - Radioactive Liquid Waste Treatment Facility (RLWTF),** located at Technical Area 50 (TA-50). "The facility has a mechanical evaporation system and Outfall 051 has not discharged since" November 2010. EPA Fact Sheet, p. 7.

  Since 1998, LANL has worked to reconstruct the RLWTF to become a "zero liquid discharge" facility, which was completed in November 2010 with the installation and operation of a mechanical evaporation system.

  LANL's permit renewal application incorporates by reference the previous application, which says LANL does not intend to discharge via Outfall 051 except when both evaporation systems are inoperative, i.e., in highly unlikely circumstances.

- **Outfall 03A027 - Strategic Computing Complex (SCC) Cooling Tower,** located at TA-3. "Outfall 03A027 did not discharge from September 2016 and to at least May 2019, so older monitoring data was submitted." *Id.*, p. 5.

- **Outfall 03A113 - Los Alamos Neutron Science Complex (LANSCE) facility,** located at TA-53. "The cooling towers identified as TA-53-293 are not currently in use but could return to service in the future." *Id.*, p. 5 – 6.

- **Outfall 03A160 - National High Magnetic Field Laboratory cooling towers,** located at TA-35. Treated water is being "discharged" to the Sanitary Wastewater System (SWWS) Plant, located at TA-46. *Id.*, p. 6 and App. H, p. H-4.

- **Outfall 05A055 - High Explosive Wastewater Treatment Facility,** located at TA-16 in Cañon de Valle. "Since November of 2007, the HEWTF has used the electric evaporator and not discharged through the permitted outfall." *Id.*, pp. 6 – 7, and H-125 of 135.

Further, some of these facilities also handle, treat and store not only hazardous waste, but radioactive transuranic (TRU) (plutonium-contaminated) wastes. Recently, the Defense Nuclear Facilities Safety Board (Board or DNFSB) issued a letter and technical report to the Department of Energy detailing their concerns about chemical reaction events involving TRU waste at LANL, specifically in the Plutonium Facility (PF-4), the

Transuranic Waste Facility (TWF), the Chemistry and Metallurgy Research Facility (CMR), and at Area G.[1]

PF-4 and the CMR facility both deliver low-level radioactive liquid waste and TRU radioactive liquid waste to the RLWTF for handling, treatment and storage. TRU and hazardous waste, including sludge, destined for the Waste Isolation Pilot Plant (WIPP) are stored at Area G and the TWF. The Board's findings, as summarized in the cover letter, heighten our concern about the improper regulation of facilities that are hidden behind the veil of the Clean Water Act exemption. Because these facilities handle, treat and store such potential energetic chemicals, they must be properly regulated by RCRA.

Below are extracts from the Board's letter:

> The Board found that safety bases for both National Nuclear Security Administration and Environmental Management facilities at Los Alamos National Laboratory do not consistently or appropriately consider a potential energetic chemical reaction involving transuranic waste.
>
> - **Hazard analyses** lack systematic evaluations of the chemical compatibility of transuranic waste streams. These analyses are needed to fully identify potential chemical reaction hazards associated with waste constituents.
>
> - **Accident analyses** are not bounding, assume inappropriate initial conditions, and do not defensibly establish the quantity of radioactive material that may be released due to an energetic chemical reaction. As such, additional credited safety controls may be necessary to protect workers and the public.
>
> - Some facilities store transuranic waste without any engineered controls beyond the waste container. The radiological release events that occurred at the Waste Isolation Pilot Plant and Idaho National Laboratory have demonstrated the importance of incorporating **multiple layers of protection** to reduce the consequences of an accident.[2]

As documented by the Board, LANL has not done its homework to create safety bases, hazard analyses and accident analyses that take into account potential energetic chemicals – many of which are regulated by RCRA. LANL has not established multiple layers of protection to reduce the impacts of an accident to workers and the public.

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[1] September 24, 2020 letter from Thomas A. Summers, Acting Chair of the Defense Nuclear Facilities Safety Board, to The Honorable Dan Brouillette, Secretary of Energy, with attached report: *Potential Energetic Chemical Reaction Events Involving Transuranic Waste at Los Alamos National Laboratory,* DNFSB/TECH-46, September 2020. https://www.dnfsb.gov/documents/letters/potential-energetic-chemical-reaction-events-involving-transuranic-waste-los

[2] *Id.*

"[We're] sick and tired of being sick and tired"[3] by the lack of proper regulation by federal and state regulatory agencies charged with those responsibilities for these increasingly dangerous facilities as documented by the DNFSB. It is time for EPA to remove the Radioactive Liquid Waste Treatment Facility (Outfall 051) from the Clean Water Act permit. The proper regulatory regime is RCRA as recognized by LANL over two decades ago.

In 1998, LANL expressed its concern that it could lose the Clean Water Act exemption, which would put it under the more stringent hazardous waste laws:

> [T]he loss of the NPDES permit at the RLWTF will cause the loss of the RCRA exemption for the RLWTF. RCRA regulatory oversight will increase at the RLWTF. NPDES regulatory oversight will decrease.[4]

Also,

> As regulatory requirements become more stringent and as the possibility of eliminating outfall 051 progresses, it will be important to have complete characterization of wastes discharged to the RLWTF. … **If the outfall 051 NPDES permit is allowed to be deleted, operation of the RLWTF will fall under RCRA guidelines.** Management of waste at the source, including management of the waste generators' [Waste Acceptance Criteria] WAC and management of facilities connections to the collection system, is a necessary part of this process. Specific monitoring regimes will be required by the RLWTF.[5] [Emphasis added.]

Now is the time for EPA to delete the RLWTF (Outfall 051), and other facilities that have no plan or intention to discharge, from the permit.

We support the extensive public comments and exhibits submitted by Concerned Citizens for Nuclear Safety, Honor Our Pueblo Existence (H.O.P.E.), and the New Mexico Acequia Association (NMAA) calling for the deletion of the RLWTF from the permit.

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[3] Fannie Lou Hamer's statement to the Credentials Committee of the Democratic National Convention in Atlantic City. August 22, 1964.

[4] *Elimination of Liquid Discharge to the Environment from the TA-50 Radioactive Liquid Waste Treatment Facility,* LA-13452-MS, UC-902, June 1998, Table 6. Evaluation Matrix of Zero Liquid Discharge Alternative, p. 35. https://www.osti.gov/biblio/661523-elimination-liquid-discharge-environment-from-ta-radioactive-liquid-waste-treatment-facility

[5] *Id.*, p. 37.

We reiterate our request for EPA to delete facilities that have no plan or intention to discharge.

Thank you for your careful consideration of our comments and for your written response to the issues we have raised herein. Please contact us with any questions and comments.

Sincerely,

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Governor Michelle Lujan Grisham, https://www.governor.state.nm.us/contact-the-governor/
Representative Angelica Rubio, Chair, NM Radioactive and Hazardous Materials Interim Committee, angelica.rubio@nmlegis.gov
Senator Jeff Steinborn, Vice Chair, NM Radioactive and Hazardous Materials Interim Committee, jeff.steinborn@nmlegis.gov
Representative Christine Chandler, member of the NM Radioactive and Hazardous Materials Interim Committee, christine.chandler@nmlegis.gov
James Kenney, NMED Secretary, James.Kenney@state.nm.us
Stephanie Stringer, NMED Resource Protection Division, Stephanie.Stringer@state.nm.us
Kevin Pierard, NMED Hazardous Waste Bureau Chief, Kevin.Pierard@state.nm.us

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency Region 6
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, TX 75270

By email: rosborough.evelyn@epa.gov

Re: Comment on Clean Water Act Permit No. NM0028355 for LANL Industrial Wastewater Discharge

Dear Ms. Rosborough:

Los Alamos National Laboratory (LANL) is asking the Environmental Protection Agency (EPA) to issue another Clean Water Act permit. Yet this permit includes facilities that have not discharged wastewater into the environment for years or sometimes, decades.

LANL facilities that have no discharge from an outfall should no longer be included in a Clean Water Act permit.

I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. This is just a way for LANL to get around the more stringent RCRA hazardous waste laws and regulations which should be regulating these facilities. It is against the regulations and totally illegitimate to exempt such LANL facilities from RCRA. That LANL continues to apply for Clean Water Act permits for these facilities only shows that the Lab is **not** a good neighbor to the surrounding communities, as it is seeking to weasel out—yet again—from its environmental responsibilities.

LANL has a long history of just this kind of irresponsible, illegal and reckless behavior as year after year they do everything possible to avoid their responsibilities toward the communities that surround them—whether it is to limit their EJSCREEN radii essentially to Los Alamos County—possibly the richest county in the country—while ignoring the majority/minority makeup of poorer, local pueblos and the Espanola Valley and beyond—an area that LANL has already contaminated with their past discharges; or venting tritium gas with no care or even study of effects on the same local population because it's the cheapest way for the Lab to check off one of the boxes on their contract; or shipping waste to WIPP that, through total incompetence and greed, has become explosive, with no care at all for safety.

LANL has not improved their safety culture at all despite numerous demands from affected communities, government oversight entities, and state and local agencies. If EPA is truly in the business of protecting the environment, letting LANL continue to avoid proper regulation is not the way to go. EPA should require proper permit applications that meet the regulations instead of rubber stamping these illegal permits.

Therefore I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete those facilities that are in the business of handling, treating, and storing hazardous waste but do not discharge, from the Clean Water Act permit so that they can be properly regulated by the more stringent RCRA regulations ,and LANL can show that they actually understand what safety means and that they are willing to operate the Lab in a safe manner.

Thank you for your careful consideration of my comments.

Sincerely,
Deborah Reade
117 Duran Street
Santa Fe, New Mexico 87501
505-986-9284
reade@nets.com

October 30,2020

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency Region 6
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, TX 75270

Re: Public Comment about the draft LANL Industrial Wastewater Discharge Clean Water Act Permit No. NM0028355

Dear Ms. Rosborough:

I object to Los Alamos National Laboratory (LANL) asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged wastewater to the environment for years, if not decades.

Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." Some LANL facilities have no discharge from a "point source," also known as an outfall. These facilities should no longer be on the permit.

I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. Such Clean Water Act permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.

I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete from the Clean Water Act permit those facilities that are in the business of handling, treating, and storing hazardous waste, but do not discharge. Open the door to their proper and more stringent regulation under RCRA.

Thank you for your careful consideration of my comments.

Sincerely,

James Eagle
21 Cougar Ridge
Santa Fe, NM 87505

From: Jean Siegfried Darling <jdarling@sandwich.net>
Sent: Friday, October 30, 2020 6:48 PM
To: Rosborough, Evelyn <rosborough.evelyn@epa.gov>
Subject: Clean Water Act permit No. NM0028355

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency Region 6
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, TX 75270

Re: Public Comment about the draft LANL Industrial Wastewater Discharge
Clean Water Act Permit No. NM0028355

Dear Ms. Rosborough:

I object to Los Alamos National Laboratory (LANL) asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged wastewater to the environment for years, if not decades.

Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." Some LANL facilities have no discharge from a "point source," also known as an outfall. These facilities should no longer be on the permit.

I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. Such Clean Water Act permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.

I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete from the Clean Water Act permit those facilities that are in the business of handling, treating, and storing hazardous waste, but do not discharge. Open the door to their proper and more stringent regulation under RCRA.

Thank you for your careful consideration of my comments.

Sincerely,
Jean Darling
--

Rev. Jean Siegfried Darling
312.405.9470 (cell)
Minister Emerita, Peoples Church of Chicago

Co-Chair, UU Santa Fe Environmental Justice Team

Cerrillos, NM 87010

From: Maj-Britt Eagle <majbritt@eaglerest.org>
Sent: Monday, November 2, 2020 1:09 PM
To: Rosborough, Evelyn <rosborough.evelyn@epa.gov>; Alex_Eubanks@heinrich.senate.gov; Graham.Mason@mail.house.gov
Cc: Senator@tomudall.senate.gov; Francesca_dipalma@tomudall.senate.gov; Matt_Miller@tomudall.senate.gov; Senator@martinheinrich.senate.gov; Maya_Hermann@heinrich.senate.gov
Subject: Urge not to release tritium from LANL, not to issue water discharge permit to LANL

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency Region 6
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, TX 75270

RE: Against ***tritium release at LANL*** and Clean Water Act, discharge permit for LANL

Dear Ms. Rosborough:

As the wife of a US Nuclear Submarine officer for 47 years, and the mother of two,

as well as a League of Women Voter member of the nuclear waste disposal study group, I've acquired some knowledge of the effects of radiation release into the Earth ecosystem, on life broader than only human, and urge you to shut down any attempt to (1) release tritium into the atmosphere, and (2) allow the discharge of radioactive water into our surroundings here in Los Alamos and Santa Fe, New Mexico.

Further reasoning on the water discharge and permit are below:

Safety bases for both National Nuclear Security Administration and Environmental Management facilities at Los Alamos National Laboratory do not consistently or appropriately consider a potential energetic chemical reaction involving transuranic waste.

· **Hazard analyses** lack systematic evaluations of the chemical compatibility of transuranic waste streams. These analyses are needed to fully identify potential chemical reaction hazards associated with waste constituents.

· **Accident analyses** are not bounding, assume inappropriate initial conditions, and do not defensibly establish the quantity of radioactive material that may be released due to an energetic chemical reaction. As such, additional credited safety controls may be necessary to protect workers and the public.

Some facilities store transuranic waste without any engineered controls beyond the waste container. The radiological release events that occurred at the Waste Isolation Pilot Plant and Idaho National Laboratory have demonstrated the importance of incorporating **multiple layers of protection** to reduce the consequences of an accident.

Sincerely,

Mrs. James N. Eagle, November 2, 2020

21 Cougar Ridge Road, Santa Fe, New Mexico, 87505

John E. Wilks, III
Chair, Environmental Committee
Veterans For Peace, Chapter #63 (ABQ)
1115 Republic Road
Winston, NM 87943

SUBMITTED BY EMAIL
"*rosborough.evelyn@epa.gov"*

November 1, 2020

Ms. Evelyn Rosborough
U. S. Environmental Protection Agency, Region VI
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite #500
Dallas, TX 75270

Re: Public Comment to LANL Industrial Wastewater Discharge Clean Water Act Application (DRAFT) to Permit NM0028355

Dear Ms. Rosborough:

This public comment is timely electronically filed prior to the November 2nd deadline to file.

Veterans For Peace, Chapter #63, strongly object to the flagrant attempt by the Los Alamos National Laboratory to circumvent the Resource Conservation and Recovery Act (RCRA) by listing on its application five (05) facilities that not have a discharge and therefore are not eligible for inclusion on the Clean Water Act regulation. The five entities inappropriately listed clearly fall into the purview of the RCRA.

The Clean Water Act addresses entities that involve "discharge or any pollutant, or combination or pollutants." The five entities that we are urging you to remove from any permit you issue, do not discharge and therefore are inappropriate for inclusion. Kindly, delete from the Clean Water Act permit those five facilities that involve handling, treating, and storing hazardous wastes, rather than discharges within the jurisdiction of the Clean Water Act. The entities for which I request deletion are, as follows:

Radioactive Liquid Waste Treatment Facility (RLWTF);
Strategic Computing Complex;
Los Alamos Neutron Science Complex, or LANSCE, facility;
National High Magnetic Field Laboratory; and
High Explosive Wastewater Treatment Facility.

Thank you for your consideration of this request.

Respectfully,

(signed)

John E. Wilks, III
Committee Chair

November 1, 2020

Ms. Evelyn Rosborough
U.S. Environmental Protection Agency
NPDES/Wetland Review Section (6WD-PN)
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102
(214) 665-7515

Email sent to: rosborough.evelyn@epa.gov

Re: LANL Industrial Wastewater Permit - Draft Permit No. NM0028355

https://www.epa.gov/nm/lanl-industrial-wastewater-permit-draft-permit-no-nm0028355-0

Dear Sir/Madam

Citizen Action New Mexico is opposed to the continued issuance of an NPDES permit under the Clean Water Act from at least the following five facilities at Los Alamos National Laboratory:

1. **The Radioactive Liquid Waste Treatment Facility.** This key facility, located across the street from the Plutonium Facility, treats liquid radioactive and hazardous waste contaminated by the fabrication of plutonium pits, or the triggers, for nuclear weapons. In 1963, discharges began through Outfall 051 into a tributary of Mortandad Canyon. In the late 1990's LANL instituted a "zero liquid discharge" plan to eliminate the discharge.

2. **The Strategic Computing Complex** (no discharge between September 2016 and to at least May 2019);

3. **The Los Alamos Neutron Science Complex**, or LANSCE, (facility cooling towers are no longer in use);

4. **The National High Magnetic Field Laboratory** (treated water being "discharged" to the Sanitary Wastewater System (SWWS) Plant); and

5. **The High Explosive Wastewater Treatment Facility** (since November 2007 an electric evaporator(s) has been in use).

All of these facilities should be regulated under the Resource Conservation and Recovery Act (RCRA) and the areas adjacent to these non-discharge facilities should be required to clean up the contaminated soil from past operations.

It is high time for the EPA to discontinue the fiction that these discharge permits should be issued where there is no discharge. EPA should not accommodate a lesser standard of protection for public health and environmental safety than could be obtained under RCRA. The continued issuance of such permits in the absence of discharge is contrary to law.

David B. McCoy, J.D., Executive Director
Citizen Action New Mexico
dave@radfreenm.org
Cc: James Kenney, NMED Secretary
Kevin Pierard, NMED Hazardous Waste Bureau

EXHIBIT I

NPDES PERMIT NO. NM0028355
FACT SHEET

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT

Triad National Security, LLC
Los Alamos National Laboratory
PO Box 1663, K491
Los Alamos, New Mexico 87544

AND

U.S. Department of Energy
Los Alamos Area Office, A316
3747 West Jemez Road
Los Alamos, NM 87544

ISSUING OFFICE

U.S. Environmental Protection Agency
Region 6
1201 Elm Street
Dallas, Texas 75270

PREPARED BY

Isaac Chen
Environmental Engineer
Permitting & Water Quality Branch (6WD-P)
Water Division
VOICE: 214-665-7364
FAX: 214-665-2191
EMAIL: chen.isaac@epa.gov

DATE PREPARED

February 26, 2020 [w/ Correction]

PERMIT ACTION

Proposed reissuance of the expiring permit issued August 12, 2014, then modified March 27, 2015, with an expiration date of September 30, 2019.

RECEIVING WATER – BASIN

Rio Grande (see details below) – Segment No. 20.6.4.126/128 of the Rio Grande Basin

DOCUMENT ABBREVIATIONS

In the document that follows, various abbreviations are used. They are as follows:

4Q3	Lowest four-day average flow rate expected to occur once every three-years
BAT	Best available technology economically achievable
BCT	Best conventional pollutant control technology
BPT	Best practicable control technology currently available
BMP	Best management plan
BOD	Biochemical oxygen demand (five-day unless noted otherwise)
BPJ	Best professional judgment
CBOD	Carbonaceous biochemical oxygen demand (five-day unless noted otherwise)
CD	Critical dilution
CFR	Code of Federal Regulations
cfs	Cubic feet per second
COD	Chemical oxygen demand
COE	United States Corp of Engineers
CWA	Clean Water Act
DMR	Discharge monitoring report
ELG	Effluent limitation guidelines
EPA	United States Environmental Protection Agency
ESA	Endangered Species Act
FCB	Fecal coliform bacteria
F&WS	United States Fish and Wildlife Service
mg/l	Milligrams per liter (one part per million)
ug/l	Micrograms per litter (one part per billion)
MGD	Million gallons per day
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMIP	New Mexico NPDES Permit Implementation Procedures
NMWQS	New Mexico State Standards for Interstate and Intrastate Surface Waters
NPDES	National Pollutant Discharge Elimination System
MQL	Minimum quantification level
O&G	Oil and grease
POTW	Publically owned treatment works
RP	Reasonable potential
SIC	Standard industrial classification
s.u.	Standard units (for parameter pH)
SWQB	Surface Water Quality Bureau
TDS	Total dissolved solids
TMDL	Total maximum daily load
TRC	Total residual chlorine
TSS	Total suspended solids
UAA	Use attainability analysis
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Service
WLA	Wasteload allocation
WET	Whole effluent toxicity
WQCC	New Mexico Water Quality Control Commission

WQMP Water Quality Management Plan
WWTP Wastewater treatment plant

STATE CERTIFICATION: The permit is in the process of certification by the State agency following regulations promulgated at 40 CFR124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service; and to the National Marine Fisheries Service prior to the publication of that notice.

TRIBAL CONSULTATION: Several Pueblos are located in the vicinity of Los Alamos National Laboratory. They include the following: San Ildefonso, Santa Clara, and Cochiti. The Santa Clara Pueblo has approved water quality standards (WQS); however, it is not adjacent to any stream where discharges are proposed to be authorized. Santa Clara is therefore not believed to be affected by the discharges proposed to be authorized by this permit. Neither San Ildefonso nor Cochiti Pueblo has submitted WQS for approval at this time; therefore, the only 401 Certification is required from the State of New Mexico. However, pursuant to EPA's Tribal Consultation Policy, EPA offered San Ildefonso, Cochiti Pueblos, Pueblo of Santa Clara, and Pueblo of Jemez the opportunity to engage in government-to-government consultation because they are part of Los Alamos Pueblos Project.

FINAL DETERMINATION: The public notice describes the procedures for the formulation of final determinations.

I. CHANGES FROM THE PREVIOUS PERMIT

EPA proposes some significant changes from the permit previously issued with an expiration date of September 30, 2019. Water quality-based effluent limitations change are due to new effluent flow or quality information.

A. All Outfalls: Deleting monitoring requirements and/or effluent limitations for pollutants which new effluent characteristics demonstrated no Reasonable Potential further described in Part V.C.4.

B. Outfall 001: Adding WET limit for Ceriodaphnia dubia; and adding/retaining effluent limitations for copper, zinc and PCBs.

C. Outfall 051: Adding effluent limitations for copper and monitoring only for adjustable gross alpha.

D. Outfall 05A055: Adding/revising effluent limitations for aluminum, copper, lead, selenium and zinc.

E. Outfall 03A027: Adding/retaining effluent limitations for copper, zinc and PCBs; and deleting WET testing. Adding monitoring only for total recoverable aluminum and temperature.

F. Outfall 03A160: Adding/retaining effluent limitations for chromium (VI), mercury, selenium and cyanide.

G. Updating WET languages.

H. Outfall number 04A022 is changed to 03A022, the name change does not affect effluent limitations. Adding monitoring only for dissolved copper.

I. Adding monitoring only for total recoverable aluminum, total mercury and adjusted gross alpha at Outfall 03A113.

J. Adding monitoring only for total recoverable aluminum and temperature at Outfall 03A199.

k. [Correction] Add Chromium (VI) effluent limitations at Outfall 03A181.

II. APPLICANT LOCATION AND ACTIVITY

Under the Standard Industrial Classification (SIC) Codes 9922, 9711, 9661, and 9611, the applicant currently operates a large multi-disciplinary facility which conducts national defense research and development, scientific research, space research and technology development, and energy development.

The facility is located in Los Alamos County, New Mexico. The discharges are to receiving waters consisting of various tributaries in Waterbody Segment Code No. 20.6.4.126 and 20.6.4.128 of the Rio Grande Basin. Those discharges are:

Tech. Area	Outfall Number	Receiving Stream	Longitude/Latitude
TA-3	001	Sandia Canyon	106° 19’ 09” W/ 35° 52’ 26” N
TA-46	13S	Canada del Buey	106° 16’ 33” W/ 35° 51’ 08” N
TA-3	03A027	Sandia Canyon	106° 19’ 09” W/ 35° 52’ 26” N
TA-53	03A048	Los Alamos Canyon	106° 15’ 45” W/ 35° 52’ 11” N
TA-53	03A113	Sandia Canyon	106° 15’ 43” W/ 35° 52’ 03” N
TA-35	03A160	Ten Site Canyon	106° 17’ 49” W/ 35° 51’ 47” N
TA-55	03A181	Mortandad Canyon	106° 18’ 05” W/ 35° 51’ 51” N
TA-3	03A199	Tributary to Sandia Canyon	106° 18’ 46” W/ 35° 52’ 20” N
TA-3	04A022	Mortandad Canyon	106° 18’ 58” W/ 35° 52’ 17” N
TA-16	05A055	Canon de Valle	106° 19’ 52” W/ 30° 50’ 49” N
TA-50	051	Mortandad Canyon	106° 17’ 54” W/ 35° 51’ 54” N

Detailed descriptions of sources of discharges are provided in the application received March 28, 2019. Supplemental information with revised outfall fact sheets were received August 21, 2019.

Outfall 001: Outfall 001 is located at Technical Area (TA) 3 and discharges to a perennial reach of Sandia Canyon in Water Quality Segment 20.6.4.126 NMAC. The outfall discharges cooling water from the power plant, treated sanitary wastewater effluent from the Sanitary Wastewater System (SWWS) Facility, recycled sanitary effluent from the Sanitary Effluent Reclamation Facility (SERF), and treated cooling tower blowdown from the Strategic Computing Complex (SCC). Disinfected water pumped to the Reuse Tank is dechlorinated at the Power Plant Manhole A if it is discharged to Outfall 001. It is a continuous discharge and the monthly average flow rate is 0.154 MGD and the daily maximum flow rate is 0.333

MGD.

The following future changes may impact the flow rate and composition of Consolidated Outfall 001 after the NPDES 2019 Permit Reapplication is submitted and/or the new permit is implemented. The proposed permit conditions which based on effluent data and new information available to EPA may reflect both current operations and future changes, if possible.

• The Strategic Computing Complex (SCC) is currently adding 5 more cooling towers to its cooling system.
• Future changes to Outfall 001 may include the routing of the TA-55 Cooling Tower blowdown, currently discharging through Outfall 03A181, to the Reuse Tank at TA-3. If implemented, the discharge will either be recycled to SERF or discharged to Outfall 001. See the fact sheet provided for Outfall 03A181 for a schematic of the change. This project has not been started and is not yet scheduled.

Outfall 13S: Outfall 13S is located at TA-46 and discharges to Canada del Buey, an ephemeral reach in Water Quality Segment 20.6.4.128 NMAC. The outfall is capable of discharging treated sanitary wastewater effluent from the Sanitary Wastewater System (SWWS) Facility. Disinfected water is discharged from the chlorine contact chamber to the Effluent Holding Pond for storage until it can be pumped to the Reuse Tank at the Power Plant or discharged to Outfall 13S. If discharges to Outfall 13S is necessary, disinfected water is de-chlorinated at SWWS then discharges to Outfall 13S. The average treated flow rate is 0.229 MGD and the daily maximum flow is 0.418 MGD. The average volume of SWWS effluent discharged to Outfall 001 is significantly less on average due to reuse at the SCC after being treated at SERF. Outfall 13S did not discharge between October 2014 and September 2018, analytical results were taken from operational flows.

Outfall 03A027: Outfall 03A027 is located at TA-3 and discharges to a perennial reach of Sandia Canyon in Water Quality Segment 20.6.4.126 NMAC. The outfall is capable of discharging treated cooling water that originates from the SCC at TA-3-2327. Blowdown from the SCC Cooling Towers may be routed to Outfall 03A027, Outfall 001, or the SWWS as needed to allow for water recycling, construction, and/or maintenance activities. The cooling tower blow-down is comprised of potable water and/or recycled Sanitary Wastewater System (SWWS) effluent from the Sanitary Effluent Reclamation Facility (SERF) that is treated by the cooling tower water treatment system. If discharges occur, the potential average flow rate is 0.051 MGD and the daily maximum flow is 0.105 MGD. Outfall 03A027 did not discharge from September 2016 to at least May 2019, so older monitoring data was submitted. The SCC is currently adding 5 additional cooling towers to its cooling system, a Notice of Change will be submitted for these future changes prior to their implementation and impact to the outfall.

Outfall 03A048: Outfall 03A048 is located at TA-53 and discharges to ephemeral tributary to Los Alamos Canyon in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated cooling water that originates at TA-53-963, 964, 978, and 979. The cooling tower blow-down is comprised of potable water treated by the cooling tower water treatment system. The average flow rate is 0.088 MGD and the daily maximum flow is 0.169 MGD.

Outfall 03A113: Outfall 03A113 is located at TA-53 and discharges to an ephemeral reach of Sandia Canyon in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated cooling water that originates at TA-3-952 cooling tower water treatment system. Stormwater also mixes and is discharged

from this outfall (the application stated stormwater discharges occurred 49 days between October 2017 and September 2018). The average flow rate is 0.001 MGD and the daily maximum flow is 0.137 MGD. The cooling towers identified as TA-53-293 are not currently in use but could return to service in the future, a Notice of Change will be submitted for these future changes prior to their implementation and impact to the outfall.

Outfall 03A160: Outfall 03A160 is located at TA-35 and discharges to Ten Site Canyon, a tributary to Mortandad Canyon, in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated cooling water that originates from TA-35-124, 294 and 301 at the National High Magnetic Field Laboratory (NHMFL). The cooling tower blow-down is comprised of potable water that is treated by the cooling tower water treatment system. Blow down from the towers is routed to the Sanitary Wastewater System (SWWS) facility or may be discharged to Outfall 03A160. The average flow rate is 0.0026 MGD and the daily maximum flow is 0.0065 MGD. The discharge to Outfall 03A160 was routed to SWWS on May 5, 2018, so older monitoring data was submitted. It is the intent of the facility to no longer discharge to the outfall unless there is an operational upset that prevents cooling water from being discharged to the SWWS. The NHMFL is currently constructing a water treatment system for the cooling towers, a Notice of Change will be submitted for these future changes prior to their implementation and impact to the outfall.

Outfall 03A181: Outfall 03A181 is located at TA-55 and discharges to Effluent Canyon which is a tributary to Mortandad Canyon in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated cooling water that originates at TA-55-006. The cooling tower blow-down is comprised of potable water that is treated by the cooling tower water treatment system. The average flow rate is 0.009 MGD and the daily maximum flow is 0.032 MGD. Future changes may include the routing of the TA-55 Cooling Tower blowdown to the Reuse Tank (TA-3-336) at TA-3 for reuse or discharged to Outfall 001. A Notice of Change will be submitted for these future changes prior to their implementation and impact to the outfall.

Outfall 03A199: Outfall 03A199 is located at TA-3 and discharges to an ephemeral tributary to Sandia Canyon in Water Quality Segment 20.6.4.126 NMAC. The outfall discharges treated cooling tower blowdown that originates from the Laboratory Data Communications Center (LDCC) at TA-3-1837. The cooling tower blow-down is comprised of potable water that is treated by a cooling tower water treatment system. The average flow rate is 0.036 MGD and the daily maximum flow is 0.074 MGD.

Outfall 03A022: Outfall 03A022 is located at TA-3 and discharges to Mortandad Canyon, Water Quality Segment 20.6.4.128 NMAC. Based upon dye testing, historical building drain information, process equipment observations, and best engineering judgement it has been determine that Outfall 03A022 discharges treated once through cooling water and storm water from TA-3-66. These types of discharges are not consistent with the former 04A category and the outfall category was revised to 03A. The cooling and storm water from TA-3-66 is de-chlorinated using de-chlorination tablets that are located at the outfall where it daylights and discharges to the environment. The average flow rate is 0.001 MGD and the daily maximum flow is 0.014 MGD.

Outfall 05A055: Outfall 05A055 is located at TA-16 and discharges to an ephemeral tributary of Canon De Valle in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated wastewater that originates at TA-16-1508 at the High Explosives Wastewater Treatment Facility (HEWTF). The HEWTF

receives and treats high explosives (HE) contaminated process and/or storm water from various sumps, tanks, and facilities at TA-9 and TA-16. The average flow rate is 0.0003 MGD and the daily maximum flow is 0.0021 MGD. Effluent from the HEWTF is normally routed to the electric evaporator(s), the facility did not discharge to the outfall from October 2014 to September 2018. Operational samples were submitted for analytical testing.

Outfall 051: Outfall 051 is located at TA-50 and discharges to Effluent Canyon which is a tributary to Mortandad Canyon in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated radioactive liquid waste effluent from that originates at TA-50-1. The discharge is comprised of treated effluent from the Radioactive Liquid Waste Treatment Facility (RLWTF). The average flow rate is 0.020 MGD and the daily maximum flow is 0.040 MGD estimated at a frequency of discharge of four days a week. The facility has a mechanical evaporation system and Outfall 051 has not discharged since October 2014. (Note: an one-day discharge occurred on June 18, 2019) Future improvements to the treatment processes at the RLWTF includes the startup of a newly constructed main low-level waste treatment facility which is expected to complete startup testing in 2019 with an estimated operational start date in 2023. A Notice of Change will be submitted for this change prior to the start of operations and impact to the outfall.

III. EFFLUENT CHARACTERISTICS

A quantitative description of each discharge is presented in the EPA Permit Application Form 2C. The maximum monthly flow and pollutants which were detected and reported above EPA defined minimum quantification levels (MQLs) at each outfall are used for the reasonable potential (RP) analysis.

IV. REGULATORY AUTHORITY/PERMIT ACTION

In November 1972, Congress passed the Federal Water Pollution Control Act establishing the NPDES permit program to control water pollution. These amendments established technology-based or end-of-pipe control mechanisms and an interim goal to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water," more commonly known as the "swimmable, fishable" goal. Further amendments in 1977 of the CWA gave EPA the authority to implement pollution control programs such as setting wastewater standards for industry and established the basic structure for regulating pollutants discharges into the waters of the United States. In addition, it made it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit was obtained under its provisions. Regulations governing the EPA administered NPDES permit program are generally found at 40 CFR §122 (program requirements & permit conditions), §124 (procedures for decision making), §125 (technology-based standards) and §136 (analytical procedures). Other parts of 40 CFR provide guidance for specific activities and may be used in this document as required.

It is proposed that this permit be reissued for a 5-year term following regulations promulgated at 40 CFR §122.46(a). The Application Forms 1 and 2C for permit renewal were received by EPA on March 28, 2019 and determined "completeness." In case the proposed permit is not reissued by the current expiration date, September 30, 2019, the current permit will be administratively continued until a new permit is issued and in effect.

V. DRAFT PERMIT RATIONALE AND PROPOSED PERMIT CONDITIONS

A. OVERVIEW OF TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations contained in 40 CFR §122.44 requires that NPDES permit limits are developed that meet the more stringent of either technology-based effluent limitation guidelines, numerical and/or narrative water quality standard-based effluent limits, or the previous permit.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

Regulations promulgated at 40 CFR §122.44 (a) require technology-based effluent limitations to be placed in NPDES permits based on ELGs where applicable, on BPJ in the absence of guidelines, or on a combination of the two. In the absence of promulgating limitations based on the following technology-based controls: BPT, BCT, and BAT. These levels of treatment are:

BPT - The first level of technology-based standards generally based on the average of the best existing performance facilities within an industrial category or subcategory.

BCT - Technology-based standard for the discharge from existing industrial point sources of conventional pollutants which may include BOD, TSS, pH, and O&G.

BAT - The most appropriate means available on a national basis for controlling the direct discharge of toxic and non-conventional pollutants to navigable waters. BAT effluent limits represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Following are the summary of the BPJ-based limitations included in the administratively continued permit and EPA proposes to retain them in the permit:

Outfall 001 (Power Plant Effluent and re-used Treated Sanitary Wastewater) - Based on ELG for low volume waste discharge at electric steam power plants in 40 CFR 423.

	Monthly Average	Daily Maximum
Total Suspended Solids	30 mg/l	100 mg/l

Outfall Type 03A (Treated Cooling Water) - Based on ELG for low volume waste discharge at electric steam power plants in 40 CFR 423.

	Monthly Average	Daily Maximum
Total Suspended Solids	30 mg/l	100 mg/l
Total Phosphorus	20 mg/l	40 mg/l
pH	Range from 6.0 to 9.0 standard units	

(More stringent WQ-based pH applies to direct discharge outfalls if applicable)

Outfall Type 04A (Once Through Cooling Water) - Based on ELG for once through cooling water discharge at electric steam power plants in 40 CFR 423.

	Monthly Average	Daily Maximum
Free Available Chlorine	0.2 mg/l	0.5 mg/l
pH	Range from 6.0 to 9.0 standard units	

(WQ-based effluent limitations for total residual chlorine and pH are more stringent)

Outfall 05A055 (High Explosives Waste Water) – Total toxic organics (TTO) were based on ELG for metal finishing (40 CFR 433.11), TNT was based on permit limit established for the Pantex plant, and RDX was based on LANL effluent data. All these BPJ-based limitations were established in 2000 issued permit.

	Monthly Average	Daily Maximum
Chemical Oxygen Demand	125 mg/l	125 mg/l
Total Suspended Solids	30 mg/l	45 mg/l
Oil & Grease	15 mg/l	15 mg/l
Total Toxic Organics	1.0 mg/l	1.0 mg/l
Trinitrotoluene	20 µg/l	Report
Total RDX	200 µg/l	660 µg/l
Perchlorate	Report	Report
pH	Range from 6.0 to 9.0 standard units	

Outfall 051 (Radioactive Liquid Waste Water) – TTO was based on 40 CFR 433.11.

	Monthly Average	Daily Maximum
Chemical Oxygen Demand	125 mg/l	125 mg/l
Total Suspended Solids	30 mg/l	45 mg/l
Total Toxic Organics	1.0 mg/l	1.0 mg/l
Total Chromium	1.34 mg/l	2.68 mg/l
Total Lead	0.423 mg/l	0.524 mg/l
Perchlorate	Report	Report
pH	Range from 6.0 to 9.0 standard units	

Outfall 13S (Sanitary Waste Water) – Based on the ELG for secondary treatment in 40 CFR 133.

	Monthly Average	Daily Maximum
Biochemical Oxygen Demand	30 mg/l	45 mg/l
Total Suspended Solids	30 mg/l	45 mg/l
pH	Range from 6.0 to 9.0 standard units	

Because treated water will be conveyed to Outfall 001 or a sanitary reclamation recycling facility (SERF) no discharge normally occurs at Outfall 13S. EPA determines that Sanitary Waste Water ELG monitoring and sampling are not applicable or required at SERF for wastewater to be further treated and reused for other process. When flows are discharged at Outfall 001, Sanitary Waste Water ELG apply to that discharge even though it is mixed with other reuse water. Monitoring at the sampling location Outfall 13S to the flow measuring device in Canada del Buey is only required in case discharge is made to Canada del Buey.

C. WATER QUALITY BASED LIMITATIONS

1. General Comments

Water quality based requirements are necessary where effluent limits more stringent than technology-based limits are necessary to maintain or achieve federal or state water quality limits. Under Section 301(b)(1)(C) of the CWA, discharges are subject to effluent limitations based on federal or state WQS. Effluent limitations and/or conditions established in the draft permit are in compliance with applicable State WQS and applicable State water quality management plans to assure that surface WQS of the receiving waters are protected and maintained, or attained.

2. Implementation

The NPDES permits contain technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

3. State Water Quality Standards

The general and specific stream standards are provided in NMWQS (20.6.4 NMAC amended through August 11, 2017). The facility discharges into varied canyons in Segment No. 20.6.4.126 or 20.6.4.128 of the Rio Grande Basin. The designated uses of the receiving water are described below:

20.6.4.126 Rio Grande Basin - Perennial portion of ... Sandia canyon from Sigma canyon upstream to LANL NPDES outfall 001, ...

(A) Designated Uses: coldwater aquatic life, livestock watering, wildlife habitat and secondary contact.

20.6.4.128 Rio Grande Basin - Ephemeral and intermittent portions of watercourses within lands managed by U.S. department of energy (DOE) within LANL, including but not limited to:

Mortandad canyon, Canada del Buey, Ancho canyon, Chaquehui canyon, Indio canyon, Fence canyon, Potrillo canyon and portions of Canon de Valle, Los Alamos canyon, Sandia canyon, Pajarito canyon and Water canyon not specifically identified in 20.6.4.126 NMAC.

(A) Designated Uses: livestock watering, wildlife habitat, limited aquatic life and secondary contact.

Water quality standards of chronic aquatic life and non-persistent human health do not apply to segment number 20.6.4.128.

As described earlier in this Fact Sheet, Los Alamos National Laboratory discharges to Sandia Canyon, Los Alamos Canyon, Mortandad Canyon, Canon de Valle, and Ten Site Canyon. The facility's discharges, most of which are intermittent in nature, are located from 6.9 to 10.4 miles from the Rio Grande. All these receiving streams are ephemeral or intermittent in nature and do not generally reach the Rio Grande, except as the result of precipitation events. The State standards for livestock watering, wildlife habitat, acute aquatic life and general WQS apply to the proposed discharges. Chronic aquatic life criteria could be applied at Outfall 001 because the effluent creates a perennial portion within Sandia Canyon which is designated also for cold aquatic life use. Discharges from Outfalls 03A027 and 03A199 which are located at downstream from Outfall 001 will reach the perennial portion of Sandia Canyon, so chronic aquatic life standards also apply. For discharges into receiving streams in segment number 20.6.4.128 which are designated as intermittent in nature, no in-stream dilution is used to calculate either the in-stream waste concentrations (IWCs) or the proposed limits. All WQ-based limits in the segment number 20.6.4.128 were calculated based on 100% effluent. For discharges at Outfalls 03A027 and 03A199, the long-term average effluent flow at Outfall 001 was used to calculate critical dilution for discharges from Outfalls 03A027 and 03A199 against chronic criteria because Outfall 001 effluent is the upstream flow of these two outfalls. However, because the discharge at Outfall 03A199 is to a stormwater drain prior to reaching Sandia Canyon, an additional RP was conducted against WQS for 20.6.4.128 waterbody. A statistical multiplier of 2.13, pursuant to NM Implementation Guidance, was applied to effluent data and the data were screened against water quality standards to determine whether the discharge has a reasonable potential (RP) to exceed the applicable water quality standards. Each effluent hardness value (except for Outfalls 03A027 and 03A199 at Sandia Canyon) was used to calculate the hardness-dependent standards. The hardness and TSS values of Outfall 001 effluent were used to calculate the RP for discharges at Outfalls 03A027 and 03A199. The Table below lists outfall long-term flows, hardness and TSS values which were used for RP analysis.

Outfall Number	Avg Effluent Flow (MGD)	Hardness (mg/l)	TSS (mg/l)	4Q3 Low Flow (cfs)
001	0.154	37.5	1.986	0.0
13S	0.229	73.6	5.08	0.0
03A027	0.051	37.5*	1.986*	0.154*
03A048	0.088	126	1.96	0.0
03A113	0.0016	96.0	1.80	0.0

03A160	0.0026	118	1.1	0.0
03A181	0.0094	103.6	0.7	0.0
03A199 at the point of discharge	0.036	79.1	1.51	0.0
03A199 at the point reaches Sandia Canyon	0.036	37.5*	1.986*	0.154*
04A022	0.001	44.5	3.63	0.0
05A055	0.0003	2.9	0.57	0.0
051	0.020	17.3	0.57	0.0

Note: * Effluent characteristics are used as receiving stream water quality for RP purposes.

4. Effluent Limitations

Effluent data from each outfall reported in Form 2C were screened against the current EPA approved NM WQS. Some detection levels used for effluent characteristics reported in Form 2C were higher than the EPA approved MQL levels. If a value was reported as "<" a value which is greater than the MQL for a specific constituent, EPA used the detection levels for initial RP screening. Revised monitoring data provided with supplemental information later were used for screening purposes if necessary. Spread sheets used to calculate the reasonable potential can be found at https://www.epa.gov/publicnotices. The initial screening results show that the following discharges have RP to exceed the WQS for the designated uses in 20.6.4.128:

Outfall No.	Parameters
001	Copper, Thallium (*1), Zinc and PCBs (*2)
13S (*5)	Thallium (*1) and PCBs (*2)
03A027	Copper and Zinc
03A160	Chromium (VI), Mercury (*3), Selenium, and Cyanide
03A199	Thallium (*1)
05A055	Aluminum, Copper, Lead, Selenium, and Zinc
051 (*5)	Copper and Thallium (*4)
03A181 [Correction]	Chromium (VI) (*6)

Note: (*1) Thallium data was reported below MQL and less than the HH-OO standard but showed RP.

(*2) Method detect level used for PCB analysis was greater than the HH-OO standard.

(*3) Method detect level used for mercury analysis was greater than the MQL, but less than the applicable aquatic life standard and believed absent box was checked.

(*4) Method detect level used for thallium was greater MQL and showed RP.

(*5) Outfall 13S has no discharge and Outfall 051 has a one-time discharge in June 2019.

(*6) Total chromium data was used for RP screening purposes.

Supplemental information received on August 21 and 28, 2019, respectively, have included dissolved copper for Outfalls 001, 03A027 and 03A199; and new mercury and thallium data for Outfalls 001, 03A048, 03A113, 03A181, 03A199 and 04A022. Because a discharge at Outfall 051 occurred in June 2019, effluent data from the discharge were used for RP screening purposes.

Total Residual Chlorine (TRC) - Effluent limitations and monitoring requirements for TRC at the current permit are retained because discharges would have potentials to exceed water quality standards for TRC when chlorine products are used for disinfection or algae control. However, because the effluent limitations and monitoring requirements for TRC are based on the permit writer's discretionary rather than RP, EPA determines to retain the existing monitoring frequency of 1/week when discharges occur, rather than the monitoring frequency recommended in the NMIP, at all applicable outfalls. In accordance with the NMIP, the permit writer may establish a case-by-case monitoring frequency based on the following factors: (1) the type of treatment process, including retention time; (2) environmental significance and nature of the pollutant or pollutant parameter; (3) cost of monitoring relative to the discharger's capabilities and benefit obtained; (4) Compliance history; (5) number of monthly samples used in developing the permit limit; and (6) effluent variability.

E. coli - Monitoring requirements and effluent limitations apply at Outfalls 001 and 13S where final treated sanitary wastewaters discharge to receiving streams. The monitoring frequency is 2/month based on the frequency recommended in the NMIP for a municipal facility with activated sludge technology and a design flow of 0.1 $\leq$ 0.5 MGD. Effluent limitations and monitoring requirements for E. coli may also apply if treated sanitary wastewater discharged at Outfall 03A027 or any other outfalls.

Thallium – Thallium is a persistent HH-OO pollutant and has a very low HH-OO standard. The permittee originally reported Thallium concentration as "< 0.6 µg/l," but the MQL for Thallium is 0.5 µg/l. If 0.6 µg/l is used for RP screening, all discharges would have RP. New thallium data for certain outfalls with more sensitive method detect level were provided on August 28, 2019. EPA determines not to require effluent limitation for thallium at Outfalls 001 and 03A199 because effluent data were reported below 0.5 µg/l MQL. Thallium reported in Outfalls 13S and 051 were not updated. If LANL cannot provide new data to demonstrate that either Thallium is absent or below 0.5 µg/l at Outfall 051, EPA will establish effluent limitation and monitoring requirement for Thallium at Outfall 051 in the final permit.

Outfall 001 - EPA approved new standards for hardness-dependent total aluminum on April 30, 2012, and the discharge has demonstrated no RP to exceed new standards. However, in the letter dated September 19, 2013, NMED required effluent limitation and monitoring requirement for aluminum to be established in the current permit because the stream 20.6.4.126 was listed as impaired. The total aluminum concentration reported in the Form 2C was less than 0.0196 mg/l which is much less than the effluent limitation of 0.9889 mg/l. Since the stream 20.6.4.126 is still listed as impaired by aluminum, EPA will retain only the monitoring requirements for

aluminum from Outfall 001.

Outfalls 03A027 and 03A199 are located downstream of Outfall 001 and discharges from these two outfalls will reach the Outfall 001 effluent. If Outfall 001 discharge has RP to exceed WQS, then discharges from Outfalls 03A027 and 03A199 must not contribute additional loads of pollutants of concern to Outfall 001 effluent. EPA proposes to establish WQS for copper, zinc and PCBs at the Outfalls 03A027 and 03A199 if discharges occur at these two outfalls. Currently Outfall 03A027 has no discharge and the effluent is discharged through Outfall 001.

Outfall 03A048 – The current permit has effluent limitations for total recoverable aluminum, total arsenic, dissolved copper, total mercury, and dissolved mercury. Because effluent characteristics provided in Form 2C demonstrated no RP, EPA proposes to delete those limitations and monitoring requirements from the final permit. The current permit also has monitoring requirements for gross alpha and chromium (VI). Because the data reported in Form 2C demonstrated no RP, EPA also proposes to remove such monitoring requirements.

Outfall 03A160 – The effluent characteristics show RP for chromium (VI), mercury, selenium, and cyanide. Mercury had RP because a less sensitive analytical method was used for analysis. The permittee may retest it using a more sensitive method to demonstrate no RP. The current permit has effluent limitations and/or monitoring requirements for arsenic, copper and gross alpha, but effluent characteristics demonstrated no RP for arsenic, copper or gross alpha. Therefore, EPA proposes to include chromium (VI), mercury, selenium and cyanide in the permit, but remove arsenic, copper and gross alpha from the permit. Because discharges at this outfall have been ceased since May 2018 and discharges are conveyed to SWWS for treatment, monitoring of discharges is required only when a discharge is made at outfall to Ten Site Canyon.

Outfall 03A199 - Because the discharge at Outfall 03A199 has RP to cause or contribute to a violation for selenium and cyanide, site-specific effluent limitations are established at this outfall. Limitations for selenium and cyanide are based on wildlife habitat standard, and discharges may affect wildlife around the outfall whenever discharges occur. EPA proposes 3/week monitoring frequency for selenium and cyanide when discharge occurs.

Outfalls 03A113 and 03A181 - Discharges at these two outfalls demonstrated no RP, additional WQ-based effluent limitations are not proposed and WQ-based effluent limitations and monitoring requirements (total recoverable aluminum, dissolved copper and gross alpha, except for TRC as described above) in the current permit are proposed to be removed from these outfalls. [Correction: Total chromium of 12.5 µg/l was used for RP screening and shown RP for chromium (VI) at Outfall 03A181. The permittees noted “Believed Present” in the Application Form 2C. Therefore, EPA revises the proposed permit to include effluent limitations for Cr-VI at Outfall 03A181. If the permittees provide two dissolved Cr (VI) data by the end of the extended public comment period to EPA, EPA will re-run the RP and make the final permit decision on Cr (VI) at Outfall 03A181.]

Outfall 04A022 - Outfall 04A022 discharges treated once through cooling water and storm water from TA-3-66. LANL determined that these types of discharges are not consistent with the 04A

category and recommended that the outfall category be revised to 03A. The outfall number 04A022 is changed to 03A022. The name change does not affect effluent limitations. Discharges at the outfall demonstrated no RP, additional WQ-based effluent limitations are not proposed and WQ-based effluent limitations and monitoring requirements (total recoverable aluminum, dissolved copper and gross alpha, except for TRC as described above) in the current permit are proposed to be removed from these outfalls.

Outfalls 051 - The effluent is evaporated through a mechanical evaporator and has no discharge since November 2010. On June 18, 2019, the Radioactive Liquid Waste Treatment Facility (RLWTF) discharged effluent to Outfall 051 for the first time since November 18, 2010. The discharge included effluent sampling for all permit and Form 2C analytes during the discharge, as required by the current NPDES permit. The analytical data from these samples is a better representation of the effluent characteristics (hardness adjusted to <50 mg/L) associated with this outfall than the operational sampling data (hardness was not adjusted) provided on the Form 2C in the 2019 NPDES Permit Re-Application submitted on March 26, 2019. Sample analytical results from the June 2019 discharge were used for RP screening purposes.

Outfall 05A055 – There has been no discharge from the High Explosive Wastewater Treatment Facility (HEWTF) at Outfall 05A055 since November 2007. Normal operations since November 2007 have utilized the electric evaporator and eliminated the discharge. The applicant intends to continue to operate the HEWTF using the evaporator except under abnormal conditions (i.e., malfunction of the evaporator). The permittee plans to resume discharge in fall 2019. There have RP for Aluminum, Copper, Lead, Selenium, and Zinc, so WQ-based effluent limitations are established in the proposed permit.

PCBs – The current permit has PCB effluent limitations and monitoring requirements at Outfall 001 and at Outfall 13S (if a direct discharge occurred at Outfall 13S); and monitoring and reporting only requirements at Outfall 051.

EPA proposed Method 1668C when EPA proposed changes to analysis and sampling test procedures in wastewater regulations (i.e., 40 CFR 136), under the title “Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Sampling Procedures”, in the Federal Register Vol. 75, No. 184, September 23, 2010. Method 1668 determines individual chlorinated biphenyl congeners in environmental samples by isotope dilution and internal standard high resolution gas chromatography/high resolution mass spectrometry (HRGC/HRMS). After consideration of all comments received by EPA, EPA in the final rule making decided to defer the final approval of Method 1668C to a later date.
In accordance with the provision of 40 CFR part 144.22(i)(1)(iv), to assure compliance with permit limitations, the permit shall have requirements to monitor effluents according to test procedures approved under 40 CFR part 136 for the analyses of pollutants having approved methods under that part, and according to a test procedure specified in the permit for pollutants with no approved methods. Because EPA deferred the final approval for Method 1668C, Method 1668C or previous versions (PCB congener method) is currently not an EPA approved 40 CFR part 136 method. Rather, Method 608 or 625 (PCB Aroclor method) is the current EPA approved method which can determine PCB quantities by Aroclors (e.g., PCB-1016, PCB-1221, … PCB-1260).

EPA determined in 2014 final permit that EPA published congener Method 1668 Revision and detection levels should be used for reporting purposes only. Prior to the promulgation of Method 1668, the 0.2 µg/l minimum quantification level (MQL) listed in Appendix to Part II should be used for compliance purposes. EPA has developed MQLs to monitor compliance for permit limits below analytical values and uses those MQLs to establish defensible permits, so it is common for a MQL greater than the NMWQS. Since EPA has not coded Method 1668 neither developed MQLs for the method, both Method 1668 and its MQLs are not defensible by EPA for compliance purposes. If NMED requires Method 1668 to be used for compliance purposes and/or requires more stringent MQL for compliance purposes, NMED must specify those conditions in the State's Condition of Certification.

The human health-based limitation of 0.00064 µg/l was included in the current permit because that limitation was also based on the condition of State certification. The NMWQS, section 20.6.4.900.J (f) states "the criteria listed under human health-organism only (HH-OO) are intended to protect human health when aquatic organisms are consumed from waters containing pollutants. These criteria do not protect the aquatic life itself; rather, they protect the health of humans who ingest fish or other aquatic organisms." EPA understands that the HH-OO standards apply to the receiving stream, but has difficulty evaluating the human health impact of the discharge when ingestion of fish or other aquatic organism is unlikely to occur. EPA proposes to retain the monitoring frequency of 1/year for PCBs based on the case-by-case discretionary after considering the following facts: 1) an adverse impact to human health caused by the discharges could not be determined; 2) PCBs have been prohibited for decades and LANL is not using PCBs in any process; 3) PCBs were likely deposited in the sewer system and the sewage flow rate is quite constant; 4) LANL has demonstrated its efforts to remove PCBs from discharges; and 5) the cost of Method 1668 is relatively high to the benefit obtained. Because HH-OO standards are established at the receiving water, EPA used the default non-zero harmonic mean flow of 0.001 MGD per the NMIP to determine the RP for human health-based pollutants and the calculated PCB limitation is 0.000642 µg/l. LANL may provide data to support a different "modified harmonic mean flow" as defined in the provision of 20.6.4.11 of the NMWQS during the public comment period, so EPA may conduct a new RP screening and/or establish a new effluent limitation based on new flow information.

Minimum Quantification Level (MQL)- EPA-approved test procedures (methods) for the analysis and quantification of pollutants or pollutant parameters, including for the purposes of compliance monitoring/DMR reporting, permit renewal applications, or any other reporting that may be required as a condition of this permit, shall be sufficiently sensitive. A method is "sufficiently sensitive" when (1) the method minimum level (ML) of quantification is at or below the level of the applicable effluent limit for the measured pollutant or pollutant parameter; or (2) if there is no EPA-approved analytical method with a published ML at or below the effluent limit (see table below), then the method has the lowest published ML (is the most sensitive) of the analytical methods approved under 40 CFR Part 136 or required under 40 CFR Chapter I, Subchapters N or 0, for the measured pollutant or pollutant parameter; or (3) the method is specified in this permit or has been otherwise approved in writing by the permitting authority (EPA Region 6) for the measured pollutant or pollutant parameter. The Permittee has the option of developing and submitting a report to justify the use of matrix or sample-specific MLs rather

than the published levels. Upon written approval by EPA Region 6 the matrix or sample-specific MLs may be utilized by the Permittee for all future Discharge Monitoring Report (DMR) reporting requirements.

Current EPA Region 6 minimum quantification levels (MQLs) for reporting and compliance are provided in Appendix A of Part II of this permit. The following pollutants may not have EPA approved methods with a published ML at or below the effluent limit, if specified:

POLLUTANT	CAS Number	STORET Code
Total Residual Chlorine	7782-50-5	50060
Cadmium	7440-43-9	01027
Silver	7440-22-4	01077
Thallium	7440-28-0	01059
Cyanide	57-12-5	78248
Dioxin (2,3,7,8-TCDD)	1764-01-6	34675
4, 6-Dinitro-0-Cresol	534-52-1	34657
Pentachlorophenol	87-86-5	39032
Benzidine	92-87-5	39120
Chrysene	218-01-9	34320
Hexachlorobenzene	118-74-1	39700
N-Nitrosodimethylamine	62-75-9	34438
Aldrin	309-00-2	39330
Chlordane	57-74-9	39350
Dieldrin	60-57-1	39380
Heptachlor	76-44-8	39410
Heptachlor epoxide	1024-57-3	39420
Toxaphene	8001-35-2	39400

Unless otherwise indicated in this permit, if the EPA Region 6 MQL for a pollutant or pollutant parameter is sufficiently sensitive (as defined above) and the analytical test result is less than the MQL, then a value of zero (0) may be used for reporting purposes on DMRs. Furthermore, if the EPA Region 6 MQL for a pollutant or parameter is not sufficiently sensitive, but the analytical test result is less than the published ML from a sufficiently sensitive method, then a value of zero (0) may be used for reporting purposes on DMRs.

Revised MQL condition and MQL Table are incorporated into Part II of the proposed permit.

5. Whole Effluent Toxicity (WET)

Procedures for implementing WET terms and conditions in NPDES permits are contained in the NMIP, March 15, 2012. Table 11 of Section V of the NMIP outlines the type of WET testing for different types of discharges.

OUTFALL 001

The permit established WET biomonitoring with CD = 100%. DMR reports indicate there were eight sublethal failures for Ceriodaphnia dubia in this last permit cycle. There were no failures for Pimephales promelas. The EPA Reasonable Potential Analyzer (can be found at https://www.epa.gov/publicnotices.) indicates that RP for Pimephales promelas exists solely due to the limited number of test results used for RP analysis, however RP exists for Ceriodaphnia dubia, and a WET limit is needed. A WET limit for Ceriodaphnia dubia is established in the proposed permit. No limit for Pimephales promelas is being proposed.

The critical dilution, CD, for this discharge will remain at 100% because the discharge is to an ephemeral/intermittent water body, but creates a perennial stream, Segment 20.6.4.126. Based on the nature of the discharge, industrial power plant/Sanitary Effluent Reclamation Facility (SERF), and the nature of the receiving water; perennial stream, the Table 11 of the NMIP directs the WET test to be a 7-day chronic test using Pimephales promelas at a once every year frequency. The frequency for Ceriodaphnia dubia is once every six months. The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%.

OUTFALL 13S

The receiving water, Cañada del Buey for outfall 13S, is classified as a Rio Grande Basin segment 20.6.4.128 waterbody that is ephemeral or intermittent. Because it is designated for limited aquatic life use, EPA applies guidelines for ephemeral stream to determine the type and frequency of WET requirements. Facilities with discharges that qualify as minor (sanitary waste discharge with flow over 0.1 MGD but less than 1.0 MGD) such as outfall 13S will have WET requirements for the Daphnia pulex test species at a once per two years frequency.

OUTFALL 051

Based on historical data and the June 18, 2019 discharge WET testing result, EPA concludes that this effluent still has the reasonable potential to cause or contribute to an exceedance of the State water quality standards. Therefore, WET limits will be retained in the proposed permit. EPA proposes to establish WET requirements for Outfall 051 based on requirements for a major discharge because of the nature of discharge, industrial and radioactive wastewater. Facilities that qualify as majors and discharge to ephemeral waterbodies will have WET requirements that consist of a 100% critical dilution and a 48-hour acute test using Daphnia pulex at a once per three (3) months frequency when a WET limit is established. Since the flow from this outfall is intermittent, a 3-hour composite rather than a 24-hour composite sample is established because the discharge is intermittent. The term "3-hour composite sample" means a sample consisting of a minimum of one (1) aliquot of effluent collected at a one-hour interval over a period of up to 3-hour discharge.

The proposed permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical low-flow dilution) is defined as 100% effluent. Monitoring and reporting requirements begin on the

effective date of this permit.

Because an extremely low hardness effluent may cause WET test failure, the current permit has a hardness limit at Outfall 051.

OUTFALL 05A055

The receiving water, Cañon de Valle for outfall 05A055 is classified as a Rio Grande Basin segment 20.6.4.128 waterbody as well. This outfall qualifies as a minor industrial (excluding some operations such as aquifer remediation and drinking water treatment facilities) and discharge to ephemeral waterbodies will have WET requirements of an effluent characterization single WET sample event by 48-hour acute test using Daphnia pulex. The critical dilution (CD) will be 100% since discharges at those outfalls referenced in this section are to ephemeral streams.

The tests should all occur in winter or springtime when most sensitive juvenile life forms are likely to be present in receiving water and colder ambient temperatures might adversely affect treatment processes. This time will generally be defined as between November 1st and April 30th.

OUTFALL 03A027

The discharge at Outfall 03A027 was to the Rio Grande Basin segment 20.6.4.126 that encompasses the perennial receiving water created by the discharge of Outfall 001.

The current permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests based on a 0.75 dilution series. These additional effluent concentrations shall be 10%, 13%, 17%, 23%, and 31%. The low-flow effluent concentration (critical low-flow dilution) is defined as 23% effluent. In accordance with the NMIP, facilities with discharges that qualify as minor (e.g. treated cooling water blow down that is characteristic of other industry) such as outfall 03A027 would have a one-time effluent characterization WET requirement that consists of chronic WET testing for the Ceriodaphnia dubia and Pimephales promelas test species. For outfall 03A027, table 11 of the NMIP directs the WET test to be a 7-day chronic test using at a once per five (5) years frequency.

The discharge at Outfall 03A027 passed the one-time characterization WET test during the permit term, EPA is considering a waiver of the WET test in the future permit term at this outfall because no significant change of the nature of discharge is expected and the effluent has been conveyed to Outfall 001 and discharges via Outfall 001. This waiver is consistent with the NMIP.

OUTFALLS 03A048, 03A113, 03A160, 03A181, and Outfall 03A199

Outfalls that qualify as a minor industrial (excluding some operations such as aquifer remediation and drinking water treatment facilities) and discharge to ephemeral waterbodies are required to take an one-time effluent characterization single WET sample event by 48-hour acute

test using Daphnia pulex. The critical dilution (CD) will be 100% since discharges at those outfalls referenced in this section are to ephemeral streams. Because the WET testing result for Outfalls 03A048, 03A113, 03A160 and 03A181 already demonstrated "pass" of 100% acute WET test when EPA reissued the permit in 2014, WET requirements were not established for these outfalls. EPA proposes to retain no WET requirements for these outfalls.

7. Sewage Sludge Management

The land application of compost (biosolids) at LANL is subject to 40 CFR Part 503 Subpart B and Part IV of LANL's NPDES Industrial Outfall Permit NM0028355 – Sewage Sludge Requirements. Biosolids applied to land must meet risk-based pollutant limits specified in Part 503. Operational standards to control disease-causing organisms (pathogens) and reduce the attraction of vectors (e.g., flies and mosquitoes) to biosolids must also be met. The SWWS Compost Facility is registered pursuant to the requirements in 20.9.3.27 NMAC under Certificate No. 0215151C.

VI. CWA 303(d) IMPAIRED WATER

As discussed in the fact sheet dated June 26, 2013, most of the streams within LANL property are impaired waterbodies and industrial point sources have been identified as one of several probable sources of impairment for Mortandad Canyon (where Outfalls 03A022, 03A181 and 051 discharge to) and Canada del Buey (where Outfall 13S discharges to). Because EPA has conducted RP for discharge at each outfall and established effluent limitations if RP was demonstrated; and also because EPA realizes that most of those streams have been contaminated by pollutants carried by historical storm water runoff from Areas of Concern (AOCs) and Solid Waste Management Units (SWMUs) and EPA has issued an individual stormwater permit (NM0030759) to address storm runoffs from those AOCs and SWMUs. NMED has requested that EPA requires monitoring of pollutants which caused impairment at outfalls where those were detected in the effluent. EPA proposes monitoring only requirement of 1/Year (except for temperature, 1/quarter) for those pollutants because effluent data have demonstrated no RP. This additional monitoring requirement includes total recoverable aluminum and temperature at Outfall 03A027; total recoverable aluminum, total mercury and adjusted gross alpha at Outfall 03A113; total recoverable aluminum and temperature at Outfall 03A199; dissolved copper at Outfall 03A022; and adjusted gross alpha at Outfall 051. If TMDLs for these impaired waterbodies are approved in the future, EPA will establish effluent limitations accordingly.

VII. ANTIDEGRADATION

The NMAC, Section 20.6.4.8 "Antidegradation Policy and Implementation Plan" sets forth the requirements to protect designated uses through implementation of the State water quality standards. The limitations and monitoring requirements set forth in the proposed permit are developed from the State water quality standards and are protective of those designated uses. Furthermore, the policy sets forth the intent to protect the existing quality of those waters, whose quality exceeds their designated use. The permit requirements and the limits are protective of the assimilative capacity of the receiving waters, which is protective of the designated uses of that water, NMAC Section 20.6.4.8.A.2.

VIII. ANTIBACKSLIDING

The proposed permit is consistent with the requirements to meet antibacksliding provisions of the Clean Water Act, Section 402(o) and 40 CFR §122.44(l), which state in part that effluent limitations must be as stringent as those in the previous permit. If new effluent data demonstrates no RP for WQ-based limitations, those limitations are removed based on 40 CFR §122.44 (l)(B), new information that was not available at the time the previous permit was issued and was discussed in Part V above. WQ-based effluent limitations may be changed due to new discharge flow rate, new stream flow rate, or new criteria.

IX. HISTORICAL and ARCHEOLOGICAL PRESERVATION CONSIDERATIONS

The reissuance of the permit should have no impact on historical and/or archeological sites since no construction activities are planned in the reissuance.

X. ENDANGERED SPECIES ACT

In accordance with requirements under section 7(a)(2) of the Endangered Species Act, the EPA has reviewed this permit for its effect on listed threatened and endangered species and designated critical habitat. According to the most recent county listing of species, shown on the U.S. Fish and Wildlife Service's Information, Planning, and Conservation System, the following species with critical habitats may be present in the county where the proposed NPDES discharge occurs: Mexican spotted owl (*Strix occidentalis lucida*) and Jemez Mountains salamander (*Plethodon neomexicanus*). The following species may be present in the county where the proposed NPDES discharge occurs without critical habitats: New Mexico meadow jumping mouse (*Zapus hudsonius luteus*), southwestern willow flycatcher (*Empidonax traillii extimus*), and yellow-billed cuckoo (*Coccyzus americanus*).

During the reissuance of this permit in 2000, the EPA conducted an informal consultation with the USFWS; Cons. #2-22-01-I-018). That consultation was concluded on December 7, 2000 with the USFWS concurring by letter with EPA's determination that the reissuance of the NPDES permit for LANL would have "no effect" on Mexican spotted owl and "may affect, not likely to adversely affect" on the bald eagle (*Haliaeetus leucocephalus*) and southwestern willow flycatcher.

The USFWS concluded in the 2000 consultation letter: "Based on information in the BE (Biological Evaluation), the USFWS believes that the reissued permit should slightly improve effluent water quality at LANL over the 5-year permit. In addition, re-issuance of the NPDES permit will not measurably alter stream morphology, flow patterns, temperatures, water chemistry, or slit loads in any of the affected intermittent tributaries or the Rio Grande. Therefore, the USFWS concurs with the EPA determination that the re-issuance of the NPDES permit for LANL will have "no effect" on the Mexican spotted owl, and "may affect, not likely to adversely affect" the bald eagle and southwestern willow flycatcher." On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species and it will not be analyzed further in this document.

New species listed since the 2000 consultation were analyzed using the LANL Habitat Management Plan (HMP; Los Alamos National Laboratory (LANL), 2017. Threatened and Endangered Species Habitat Management Plan for Los Alamos National Laboratory. Los Alamos National Laboratory report LA-UR-17-29454). The purpose of the HMP is to provide a management strategy for Endangered Species Act compliance through the protection of threatened and endangered species and their habitats on LANL property. The HMP consists of site plans for federally listed threatened or endangered species with a moderate or high probability of occurring at LANL. The HMP received concurrence from the USFWS in 1999 (Consultation numbers 2-22-98-I-336 and 2-22-95-I-108) and it is updated as needed with new consultations. Provided that an activity at LANL falls within the requirements of the HMP, then the activity does not need further review from the USFWS and is considered to have the same determination as the HMP which is "may affect, not likely to adversely affect". Activities that cannot follow the HMP requirements must go through an individual section-7 consultation. The EPA determines that the reissuance of this permit has "no effect" upon the baseline of the HMP.

Mexican spotted owl. The Mexican spotted owl prefers forested mountains and canyons with mature trees that create high, closed canopies, which are good for nesting. They also nest in stick nests built by other birds, in tree cavities and caves and on cliff ledges. The main threats to the Mexican spotted owl are starvation, fire, and loss of habitat due to logging, which also causes a greater risk of predation by great horned owls as a result of increased open space. There have been no major changes with regards to the Mexican spotted owl since the 2000 consultation. Therefore, reissuance of this permit will not contribute threats to the Mexican spotted owls and the EPA maintains the "no effect" determination.

Southwestern willow flycatcher. The southwestern willow flycatcher is one of four subspecies of the willow flycatcher. The historic range of the southwestern willow flycatcher included Arizona, California, Colorado, New Mexico, Texas, Utah, and Mexico. Currently, this flycatcher breeds in riparian habitats from southern California to Arizona and New Mexico, plus southern Colorado, Utah and Nevada. There have been no major changes with regards to the southwestern willow flycatcher since the 2000 consultation. Therefore, the reissuance of this permit will not contribute any new threats to the southwestern willow flycatcher and the EPA maintains the "may affect, not likely to adversely affect" determination.

Yellow-billed cuckoo. Yellow-billed Cuckoos use wooded habitat with dense cover and water nearby, including woodlands with low, scrubby, vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. In the Southwest, yellow-billed cuckoos breed in riparian woodlands of willows, cottonwoods and dense stands of mesquite to breed. This species was not analyzed in the 2000 consultation. The LANL HMP does not have any requirements for this species since it does not contain any breeding habitat on-site. Therefore, the reissuance of this permit has "no effect" on this species.

Jemez Mountains salamander. The Jemez Mountains salamander is endemic to the Jemez Mountains of north-central New Mexico and is found in Los Alamos, Rio Arriba, and Sandoval counties. It is one of two endemic plethodontid salamanders that occur in New Mexico. It occurs predominantly at elevations between 6,988 to 11,254 ft in mixed conifer forests with

greater than 50 percent canopy cover. Plethodontid salamanders, which lack both lungs and gills, breathe through the mucous membranes in their mouth and throat and through their moist skin. The Jemez Mountains salamander is completely terrestrial and does not use standing surface water for any life stage. Present in its habitat year-round, the Jemez Mountains salamander spends most of its life underground but can be found on the surface when conditions are warm and wet, approximately July through October. This species was not analyzed in the 2000 consultation. The reissuance of this permit is within the scope of the HMP requirements. Therefore, it has been determined that its reissuance "may affect, not likely to adversely affect" the Jemez Mountains salamander.

New Mexico meadow jumping mouse. The New Mexico meadow jumping mouse is endemic to New Mexico, Arizona, and a small area of southern Colorado. The jumping mouse is grayish-brown on the back, yellowish-brown on the sides, and white underneath. The jumping mouse is a habitat specialist and it nests in dry soils, but uses moist, streamside, dense riparian/wetland vegetation up to an elevation of about 8,000 ft. This species was not analyzed in the 2000 consultation. The LANL HMP does not have any requirements for this species since it does not contain any breeding habitat on-site. Therefore, the reissuance of this permit has "no effect" on this species.

XI. PERMIT REOPENER

Pursuant to the provision of 40 CFR 122.62, this permit may be reopened for modification.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. CERTIFICATION

The permit is in the process of certification by the State Agency following regulations promulgated at 40 CFR 124.53. A draft permit and draft public notice will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service and to the National Marine Fisheries Service prior to the publication of that notice.

XIV. FINAL DETERMINATION

The public notice describes the procedures for the formulation of final determinations.

XV. ADMINISTRATIVE RECORD

The following information was used to develop the proposed permit:

A. APPLICATION(s)

EPA Application Forms 1 and 2C package received March 28, 2019. Supplemental information with revised outfall fact sheets and new effluent data were received August 21 and 28, 2019,

respectively.

B. STATE OF NEW MEXICO REFERENCES

New Mexico State Standards for Interstate and Intrastate Surface Water, 20.6.4 NMAC, as amended through August 11, 2017.

Procedures for Implementing National Pollutant Discharge Elimination System Permits in New Mexico, March 15, 2012.

State of New Mexico 303(d)/305(b) Integrated Report, 2016 - 2018.

EXHIBIT J

DMR Summary

Permit NM0028355

Permit Name	Version Nmbr	Curr. Major Minor Status	Issue Date	Effective Date	Expiration Date
LOS ALAMOS NATIONAL LABORATORY	0	Major	8/12/14	10/1/14	9/30/19

Version # 0

Outfall 001A

00010 Temperature, water deg. centigrade / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
5/1/15	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Degrees Centigrade	Degrees Centigrade
Statistical Base	MO AVG	DAILY MX
Limit Value	24	24
DMR Values		
1/31/17	11.4	12.3
2/28/17	12.3	13
3/31/17	13.6	16.9
4/30/17	15.9	16.6
5/31/17	15.8	17.5
6/30/17	19.1	20
7/31/17	21.1	22.1
8/31/17	20.8	21.3
9/30/17	20	20.5
10/31/17	17.9	18.7
11/30/17	16.4	17.7
12/31/17	14.1	15.6
1/31/18	13.3	15.2
2/28/18	12.9	14.1
3/31/18	13.5	13.8
4/30/18	15.3	16
5/31/18	17.6	18.8
6/30/18	19.2	19.8
7/31/18	20.6	20.9
8/31/18	19.7	20.2
9/30/18	19	20.5
10/31/18	18.2	18.2
11/30/18	16.2	17.7
12/31/18	12.9	16.6
1/31/19	12.3	13
2/28/19	11.1	12.5
3/31/19	12.5	14.3
4/30/19	14.1	16.3
5/31/19	17	18.5
6/30/19	19.1	20
7/31/19	19.7	20.4
8/31/19	19.5	20.8
9/30/19	18.1	20.6

DMR Summary

Permit NM0028355

Version # 0

Outfall 001A

00010 Temperature, water deg. centigrade / Location 1 / Season 0 / Base

DMR Values		
10/31/19	16.5	19.7
11/30/19	14.9	19.2
12/31/19	12.5	17.4
1/31/20	12.2	16.4
2/29/20	12.8	16
3/31/20	13.5	16.4
4/30/20	15.6	19.7
5/31/20	15.7	18.8
6/30/20	17.8	20.4
7/31/20	17.6	25.3
8/31/20	1.58	17.8
9/30/20	15.4	19.1
10/31/20	16	18.1
11/30/20	15.1	17.2
12/31/20	12.2	13.8
1/31/21	11.5	12.4
2/28/21	11.8	13.5
3/31/21	12.3	14.2
4/30/21	14.5	16
5/31/21	14.9	18.1
6/30/21	15.6	18.1
7/31/21	16.6	18.6
8/31/21	16.3	21.7
9/30/21	13.5	17
10/31/21	16.5	18
11/30/21	15.6	17.6
12/31/21	12.7	14.8

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6.6	8.8
DMR Values		
1/31/17	7.6	7.9
2/28/17	7.5	7.7
3/31/17	7.5	8.1
4/30/17	7.4	8
5/31/17	7.8	7.9
6/30/17	7.7	8.5
7/31/17	7.9	8
8/31/17	7.6	7.8
9/30/17	7.6	7.9
10/31/17	7.4	7.7
11/30/17	7.3	7.8
12/31/17	7.2	7.8
1/31/18	7.2	7.6

DMR Summary

Permit NM0028355

Version # 0

Outfall 001A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
2/28/18	7.2	7.6
3/31/18	7	7.6
4/30/18	7.3	7.6
5/31/18	7.6	7.9
6/30/18	7.5	7.7
7/31/18	7.5	7.8
8/31/18	7.5	7.5
9/30/18	7.5	738
10/31/18	7.3	7.6
11/30/18	7.6	7.8
12/31/18	7.4	7.7
1/31/19	7.4	7.6
2/28/19	7.3	7.6
3/31/19	7.3	7.5
4/30/19	7.3	7.6
5/31/19	7.1	7.6
6/30/19	7.5	7.6
7/31/19	7.5	7.6
8/31/19	7.3	8
9/30/19	7.6	7.8
10/31/19	7.4	7.8
11/30/19	7.5	7.6
12/31/19	7.4	7.6
1/31/20	7.4	7.4
2/29/20	7	7.4
3/31/20	6.9	7.6
4/30/20	7.3	7.8
5/31/20	7.2	7.5
6/30/20	7.4	7.6
7/31/20	7.5	7.7
8/31/20	7.5	7.8
9/30/20	7.1	8
10/31/20	7	7.1
11/30/20	7.5	7.5
12/31/20	7.2	7.8
1/31/21	7.5	7.6
2/28/21	7.4	7.8
3/31/21	7.4	7.4
4/30/21	7	7.8
5/31/21	7.4	7.9
6/30/21	7.9	8
7/31/21	7.8	8.1
8/31/21	7.6	7.6
9/30/21	7.9	8
10/31/21	7.6	8
11/30/21	7.5	7.7
12/31/21	7.3	7.7

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis

DMR Summary

Permit NM0028355

Version # 0

Outfall 001A

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Monthly

Limit				
Limit Unit Desc	Pounds per Day	Pounds per Day	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX	MO AVG	DAILY MX
Limit Value			30	100
DMR Values				
1/31/17	4.185	4.185	2	2
2/28/17	3.66	3.66	2	2
3/31/17	4.698	4.698	2.4	2.4
4/30/17	6.613	6.613	5.9	5.9
5/31/17	1.4	1.4	.9	.9
6/30/17	1.47	1.47	1.2	1.2
7/31/17	.146	.146	1.5	1.5
8/31/17	2.85	2.85	1.7	1.7
9/30/17	.898	.898	1.2	1.2
10/31/17	1.169	1.169	.753	.753
11/30/17	2.03	2.03	1.4	1.4
12/31/17	1.087	1.087	.7	.7
1/31/18	.756	.756	.8	.8
2/28/18	2.29	2.29	1.5	1.5
3/31/18	<.708	<.708	<.57	<.57
4/30/18	<.632	<.632	<.57	<.57
5/31/18	<.523	<.523	<.57	<.57
6/30/18	2.3	2.3	1.3	1.3
7/31/18	2.05	2.05	2.42	2.42
8/31/18	.801	1.05	1	1.2
9/30/18	8.63	8.63	3.4	3.4
10/31/18	<1.17	<1.17	<.648	<.648
11/30/18	3.48	3.48	1.6	1.6
12/31/18	8.05	8.05	3.5	3.5
1/31/19	.973	.973	<.57	<.57
2/28/19	6.45	6.45	4	4
3/31/19	4.06	4.06	1.8	1.8
4/30/19	2.45	2.45	1.5	1.5
5/31/19	2.36	2.36	1.8	1.8
6/30/19	7.2	7.2	4.13	4.13
7/31/19	1.27	1.27	1	1
8/31/19	1.89	1.89	1.7	1.7
9/30/19	1.98	1.98	1.5	1.5
10/31/19	2.61	2.61	1.9	1.9
11/30/19	4.8	4.8	2.7	2.7
12/31/19	6.23	6.23	6.6	6.6
1/31/20	5.91	5.91	2	2
2/29/20	3.47	3.47	1.4	1.4
3/31/20	3.25	3.25	1.8	1.8
4/30/20	2.68	2.68	2.6	2.6
5/31/20	2.23	2.23	3.8	3.8
6/30/20	3.61	3.61	3.4	3.4
7/31/20	1.13	1.13	1.09	1.09
8/31/20	2.92	2.92	1.89	1.89
9/30/20	2.09	2.09	.9	.9

DMR Summary

Permit NM0028355

Version # 0

Outfall 001A

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values				
10/31/20	2.46	2.46	1.4	1.4
11/30/20	9.17	9.17	4.33	4.33
12/31/20	1.85	1.85	1	1
1/31/21	7.73	7.73	7.5	7.6
2/28/21	5.17	5.17	1.2	1.2
3/31/21	<1.06	<1.06	<.57	<.57
4/30/21	2.37	2.27	2.3	2.3
5/31/21	3.34	3.34	1.8	1.8
6/30/21	6.1	6.1	6.42	6.42
7/31/21	1.18	1.18	.9	.9
8/31/21	5.05	5.05	3.1	3.1
9/30/21	8.62	8.62	3.7	3.7
10/31/21	3.23	3.23	1.7	1.7
11/30/21	2.3	2.3	.9	.9
12/31/21	1.92	1.92	1.8	1.8

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Continuous

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.214345	.2889
2/28/17	.195721	.2257
3/31/17	.186019	.2463
4/30/17	.18881	.2493
5/31/17	.175574	.2803
6/30/17	.150203	.319
7/31/17	.116726	.1859
8/31/17	.129948	.3537
9/30/17	.136657	.3559
10/31/17	.184587	.269
11/30/17	.186037	.2298
12/31/17	.161406	.2583
1/31/18	.113845	.1704
2/28/18	.1847812	.2756
3/31/18	.176335	.2981
4/30/18	.133397	.1975
5/31/18	.217081	.3326
6/30/18	.152293	.2393
7/31/18	.0995129	.1265
8/31/18	.1171	.2179
9/30/18	.123107	.3043
10/31/18	.180384	.3889
11/30/18	.268933	.4748
12/31/18	.208235	.3743
1/31/19	.269355	.3419

Permit NM0028355

Version # 0

Outfall 001A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
2/28/19	.239621	.2955
3/31/19	.265803	.4637
4/30/19	.191873	.3621
5/31/19	.17031	.3106
6/30/19	.159823	.2493
7/31/19	.175035	.3042
8/31/19	.150877	.2956
9/30/19	.151383	.2656
10/31/19	.168113	.2812
11/30/19	.216113	.3356
12/31/19	.215497	.3554
1/31/20	.273142	.6355
2/29/20	.356955	.5162
3/31/20	.240119	.4021
4/30/20	.18572	.3233
5/31/20	.137968	.217506
6/30/20	.13251	.1876
7/31/20	.141416	.1913
8/31/20	.153058	.2098
9/30/20	.208267	.336
10/31/20	.217206	.3044
11/30/20	.259417	.331
12/31/20	.246168	.3351
1/31/21	.248	.282
2/28/21	.359532	.5162
3/31/21	.240119	.4021
4/30/21	.004752	.00576
5/31/21	.19061	.2764
6/30/21	.141627	.2615
7/31/21	.141416	.1913
8/31/21	.153058	.2098
9/30/21	.205707	.3287
10/31/21	.217206	.3044
11/30/21	.259417	.331
12/31/21	.1979	.2557

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0

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50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0
4/30/18	0
5/31/18	0
6/30/18	0
7/31/18	0
8/31/18	0
9/30/18	0
10/31/18	0
11/30/18	0
12/31/18	0
1/31/19	0
2/28/19	0
3/31/19	0
4/30/19	0
5/31/19	0
6/30/19	0
7/31/19	0
8/31/19	0
9/30/19	0
10/31/19	0
11/30/19	0
12/31/19	0
1/31/20	0
2/29/20	0
3/31/20	0
4/30/20	0
5/31/20	0
6/30/20	0
7/31/20	0
8/31/20	0
9/30/20	0
10/31/20	0
11/30/20	0
12/31/20	0
1/31/21	0
2/28/21	0
3/31/21	0
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	0
9/30/21	0

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50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
10/31/21	0
11/30/21	0
12/31/21	0

51040 E. coli / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Month

Limit		
Limit Unit Desc	Colony Forming Uni	Colony Forming Uni
Statistical Base	MOAV GEO	DAILY MX
Limit Value	126	410
DMR Values		
1/31/17	<1	<1
2/28/17	<1	<1
3/31/17	<1.414	2
4/30/17	<1	1
5/31/17	<1	<1
6/30/17	<1.761	3.1
7/31/17	6.3	9.7
8/31/17	2.5	3.1
9/30/17	2.25	5.1
10/31/17	<1	1
11/30/17	2	2
12/31/17	3.6	4.1
1/31/18	<1	1
2/28/18	<1	<1
3/31/18	<1	<1
4/30/18	<1	1
5/31/18	<1	<1
6/30/18	10.5	21.1
7/31/18	15.3	21.3
8/31/18	5	9.7
9/30/18	15.4	33.1
10/31/18	14.5	21.6
11/30/18	<5.59	<5.59
12/31/18	1	1
1/31/19	<1	<1
2/28/19	<1	1
3/31/19	<1	2
4/30/19	4	7
5/31/19	4.1	8.5
6/30/19	<1	1
7/31/19	<2.3	5.2
8/31/19	1.8	3.1
9/30/19	2.5	6.3
10/31/19	4.1	8.6
11/30/19	<2	3
12/31/19	2.3	5.2
1/31/20	<1	<1

DMR Summary

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Version # 0

Outfall 001A

51040 E. coli / Location 1 / Season 0 / Base

DMR Values		
2/29/20	<1	<1
3/31/20	<2	<1
4/30/20	<1	1
5/31/20	3.9	7.5
6/30/20	<1	1
7/31/20	1	1
8/31/20	9.53	12.1
9/30/20	10.4	26.5
10/31/20	3.67	13.5
11/30/20	<2.3	5.2
12/31/20	<1	<1
1/31/21	<1	<1
2/28/21	<1	1
3/31/21	<1	1
4/30/21	<1	1
5/31/21	<1	1
6/30/21	5.2	13.5
7/31/21	5.7	6.3
8/31/21	6.65	10.8
9/30/21	3.6	4.1
10/31/21	3.5	4.1
11/30/21	2	3
12/31/21	2.5	3.1

Outfall 001T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	1.36	1.36

Outfall 001Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Permit NM0028355

Version # 0

Outfall 001Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0073	
DMR Values		
9/30/17	.00579	
9/30/18	.00622	
9/30/19	.0025	
9/30/20	.00424	
9/30/21	.0618	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.9889	
DMR Values		
9/30/17	<.0193	
9/30/18	<.193	
9/30/19	<.0193	
9/30/20	<.0193	
9/30/21	<.0193	

39516 Polychlorinated biphenyls [PCBs] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Annual

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value	.00064	.00064
DMR Values		
9/30/17	0	0
9/30/18	.013	.013
9/30/19	0	0
9/30/20	.00000074	.0006295
9/30/21	.0000011	.0000011

Outfall 022A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Permit NM0028355

Version # 0

Outfall 022A

00400 pH / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	7.9	8
2/28/17	7.7	8.2
3/31/17	7.8	8.1
4/30/17	7.9	7.9
5/31/17	7.7	8
6/30/17	7.8	7.9
7/31/17	7.7	8
8/31/17	8	8.1
9/30/17	7	8.2
10/31/17	8.1	8.2
11/30/17	7.4	8.1
12/31/17	7.8	8
1/31/18	7.5	8
2/28/18	7.6	7.9
3/31/18	7.7	7.9
4/30/18	7.4	8
5/31/18	7.5	7.8
6/30/18	7.3	7.9
7/31/18	7.8	7.9
8/31/18	7.3	7.8
9/30/18	7.6	7.6
10/31/18	7.1	8.5
11/30/18	7.5	7.6
12/31/18	7.4	7.7
1/31/19	7.5	7.8
2/28/19	7.5	7.7
3/31/19	7.7	8
4/30/19	7.5	7.8
5/31/19	7.7	7.8
6/30/19	7.7	7.9
7/31/19	7.6	7.9
8/31/19	7.3	7.9
9/30/19	7.6	7.8
10/31/19	7.6	8
11/30/19	7.5	7.6
12/31/19	7.3	7.7
1/31/20	7.2	7.7
2/29/20	7.3	8.1
3/31/20	7	8
4/30/20	7.3	8.1
5/31/20	7.2	7.6
6/30/20	7.7	8
7/31/20	7.7	7.9
8/31/20	7.3	7.7
9/30/20	6.8	7.6
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	7.8	7.8

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Outfall 022A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
1/31/21	7.7	7.7
2/28/21	7.2	7.2
3/31/21	8	8.1
4/30/21	7.6	8
5/31/21	NODI=C	NODI=C
6/30/21	7.8	7.8
7/31/21	7.9	7.9
8/31/21	7.6	7.8
9/30/21	8	8.2
10/31/21	7.9	8.1
11/30/21	7.4	8
12/31/21	7.2	8

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.00072	.00072
2/28/17	.003559	.00576
3/31/17	.00072	.00072
4/30/17	.00072	.00072
5/31/17	.00072	.00072
6/30/17	.00072	.00072
7/31/17	.00072	.00072
8/31/17	.00072	.00072
9/30/17	.0054	.0288
10/31/17	.00072	.00072
11/30/17	.00072	.00072
12/31/17	.00072	.00072
1/31/18	.00072	.00072
2/28/18	.00072	.00072
3/31/18	.00072	.00072
4/30/18	.00072	.00072
5/31/18	.00072	.00072
6/30/18	.00072	.00072
7/31/18	.00425	.0144
8/31/18	.00072	.00072
9/30/18	.00072	.00072
10/31/18	.00072	.00072
11/30/18	.00072	.00072
12/31/18	.007177	.0216
1/31/19	.011497	.0216
2/28/19	.001466	.00864
3/31/19	.008083	.01444
4/30/19	.004944	.01152

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Outfall 022A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
5/31/19	.000743	.00144
6/30/19	.001781	.00432
7/31/19	.001301	.00288
8/31/19	.007154	.0216
9/30/19	.0009648	.00144
10/31/19	.002834	.0072
11/30/19	.003648	.00864
12/31/19	.005295	.0144
1/31/20	.008083	.01552
2/29/20	.006629	.01872
3/31/20	.010545	.036
4/30/20	.02088	.0216
5/31/20	.02513	.288
6/30/20	.006686	.02304
7/31/20	.005904	.1152
8/31/20	.011962	.01584
9/30/20	.0216	.0216
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	.006153	.0144
1/31/21	.00288	.00288
2/28/21	.00576	.00576
3/31/21	.004834	.00576
4/30/21	.004752	.004752
5/31/21	NODI=C	NODI=C
6/30/21	.0072	.0072
7/31/21	.00072	7.9
8/31/21	.013042	.01872
9/30/21	.009005	.12966
10/31/21	.001307	.00288
11/30/21	.00126	.00288
12/31/21	.002059	.00144

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	NODI=8
2/28/17	NODI=8
3/31/17	NODI=8
4/30/17	NODI=8
5/31/17	NODI=9
6/30/17	NODI=9
7/31/17	NODI=9
8/31/17	NODI=9

DMR Summary

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Outfall 022A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
9/30/17	NODI=9
10/31/17	NODI=9
11/30/17	NODI=9
12/31/17	NODI=9
1/31/18	NODI=9
2/28/18	NODI=9
3/31/18	NODI=9
4/30/18	NODI=9
5/31/18	NODI=9
6/30/18	NODI=C
7/31/18	NODI=9
8/31/18	NODI=9
9/30/18	NODI=9
10/31/18	NODI=9
11/30/18	NODI=9
12/31/18	NODI=9
1/31/19	NODI=9
2/28/19	NODI=9
3/31/19	NODI=9
4/30/19	NODI=9
5/31/19	NODI=9
6/30/19	NODI=9
7/31/19	NODI=9
8/31/19	NODI=9
9/30/19	NODI=9
10/31/19	NODI=9
11/30/19	NODI=9
12/31/19	NODI=9
1/31/20	NODI=9
2/29/20	NODI=9
3/31/20	NODI=C
4/30/20	NODI=9
5/31/20	0
6/30/20	NODI=9
7/31/20	NODI=9
8/31/20	NODI=9
9/30/20	NODI=9
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=9
1/31/21	0
2/28/21	NODI=9
3/31/21	NODI=9
4/30/21	NODI=9
5/31/21	NODI=C
6/30/21	NODI=9
7/31/21	0
8/31/21	0
9/30/21	.09
10/31/21	NODI=9
11/30/21	NODI=9
12/31/21	NODI=9

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Outfall 022A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Outfall 022Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	13.4	13.4
6/30/17	4.22	4.22
9/30/17	<.604	.638
12/31/17	<.57	<.57
3/31/18	<.57	<.57
6/30/18	2.8	2.8
9/30/18	<.57	<.57
12/31/18	<1.14	<1.14
3/31/19	<.57	<.57
6/30/19	<.582	<.582
9/30/19	<.57	<.57
12/31/19	<.57	<.57
3/31/20	<.613	<.613
6/30/20	2.6	2.6
9/30/20	<.57	<.57
12/31/20	<.57	<.57
3/31/21	8.7	8.7
6/30/21	<.57	<.57
9/30/21	<.57	<.57
12/31/21	.57	.57

Outfall 022T

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=9	NODI=9

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

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Outfall 022T

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.015	<.015

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	0	0

Outfall 027A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6.6	8.8
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=9	NODI=9
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C

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Outfall 027A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

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Outfall 027A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=9	NODI=9
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 027A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	NODI=C
2/28/17	NODI=C
3/31/17	NODI=C
4/30/17	NODI=C
5/31/17	NODI=C
6/30/17	NODI=C
7/31/17	NODI=C
8/31/17	NODI=C
9/30/17	NODI=C
10/31/17	NODI=C
11/30/17	NODI=C
12/31/17	NODI=C
1/31/18	NODI=9
2/28/18	NODI=C
3/31/18	NODI=C
4/30/18	NODI=C
5/31/18	NODI=C
6/30/18	NODI=C
7/31/18	NODI=C
8/31/18	NODI=C
9/30/18	NODI=C
10/31/18	NODI=C
11/30/18	NODI=C
12/31/18	NODI=C
1/31/19	NODI=C
2/28/19	NODI=C
3/31/19	NODI=C
4/30/19	NODI=C

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Version # 0

Outfall 027A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
5/31/19	NODI=C
6/30/19	NODI=C
7/31/19	NODI=C
8/31/19	NODI=C
9/30/19	NODI=C
10/31/19	NODI=C
11/30/19	NODI=C
12/31/19	NODI=C
1/31/20	NODI=C
2/29/20	NODI=C
3/31/20	NODI=C
4/30/20	NODI=C
5/31/20	NODI=C
6/30/20	NODI=C
7/31/20	NODI=C
8/31/20	NODI=C
9/30/20	NODI=C
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=C
1/31/21	NODI=C
2/28/21	NODI=C
3/31/21	NODI=C
4/30/21	NODI=C
5/31/21	NODI=C
6/30/21	NODI=C
7/31/21	NODI=C
8/31/21	NODI=C
9/30/21	NODI=C
10/31/21	NODI=C
11/30/21	NODI=C
12/31/21	NODI=C

51040 E. coli / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Month

Limit		
Limit Unit Desc	Colony Forming Uni	Colony Forming Uni
Statistical Base	MOAV GEO	DAILY MX
Limit Value	548	2507
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C

DMR Summary

Permit NM0028355

Version # 0

Outfall 027A

51040 E. coli / Location 1 / Season 0 / Base

DMR Values		
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	Not Received	NODI=C
1/31/18	NODI=9	NODI=9
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 027A

51040 E. coli / Location 1 / Season 0 / Base

Outfall 027Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 027Q

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

DMR Values		
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Outfall 027T

01032 Chromium, hexavalent [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=9	NODI=9

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	1.01	1.01

Outfall 027Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Permit NM0028355

Version # 0

Outfall 027Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0073	
DMR Values		
9/30/17	NODI=C	
9/30/18	NODI=C	
9/30/19	NODI=C	
9/30/20	NODI=C	
9/30/21	NODI=C	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.9889	
DMR Values		
9/30/17	NODI=C	
9/30/18	NODI=C	
9/30/19	NODI=C	
9/30/20	NODI=C	
9/30/21	NODI=C	

Outfall 048A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	7.8	8.9
2/28/17	7.8	8.7
3/31/17	7.5	8.7
4/30/17	7	7.6
5/31/17	8	8.9
6/30/17	8.4	8.9
7/31/17	8.1	8.9
8/31/17	7.8	8.2
9/30/17	8.2	8.4
10/31/17	8.2	8.5
11/30/17	7.3	8.5

Permit NM0028355

Version # 0

Outfall 048A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
12/31/17	7.4	8.4
1/31/18	7.4	8.5
2/28/18	8.3	8.5
3/31/18	7.2	7.9
4/30/18	7.6	8.2
5/31/18	7.7	8.3
6/30/18	7.7	8.3
7/31/18	7.8	8.4
8/31/18	7.5	8.4
9/30/18	7.8	8.4
10/31/18	8.1	8.5
11/30/18	7.5	8.6
12/31/18	8.1	8.4
1/31/19	7	8.6
2/28/19	7.4	8.4
3/31/19	6.9	8
4/30/19	6.7	7.6
5/31/19	7.1	8.7
6/30/19	7.5	8.4
7/31/19	7.3	8.4
8/31/19	7.4	8.2
9/30/19	7.7	8.4
10/31/19	7.8	8.4
11/30/19	7.5	7.8
12/31/19	6.9	8.3
1/31/20	6.6	7.7
2/29/20	6.7	7.9
3/31/20	6.8	8.3
4/30/20	7.1	8.7
5/31/20	7	7.4
6/30/20	7.3	8.2
7/31/20	7.3	8.4
8/31/20	7.6	8.8
9/30/20	7.5	8.5
10/31/20	7.5	8.6
11/30/20	7.4	8.5
12/31/20	8.1	8.3
1/31/21	7.6	7.8
2/28/21	7.3	7.5
3/31/21	7.3	7.7
4/30/21	7	8.2
5/31/21	8.1	8.5
6/30/21	8	8.4
7/31/21	7.2	8.1
8/31/21	7.2	7.4
9/30/21	7.1	7.2
10/31/21	7.2	8.1
11/30/21	7.1	7.9
12/31/21	7.3	8

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Permit NM0028355

Version # 0

Outfall 048A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.076142	.1128
2/28/17	.010318	.0909
3/31/17	.00764	.04865
4/30/17	.007397	.0366
5/31/17	.01461	.0221
6/30/17	.04549	.149
7/31/17	.11379	.2049
8/31/17	.19323	.2102
9/30/17	.115317	.2068
10/31/17	.105145	.1421
11/30/17	.116967	.14
12/31/17	.100642	.1099
1/31/18	.067168	.1198
2/28/18	.0086357	.0153
3/31/18	.011484	.04266
4/30/18	.02551	.0449
5/31/18	.123506	.1603
6/30/18	.11446	.1689
7/31/18	.09431	.1573
8/31/18	.14343	.1586
9/30/18	.12606	.1483
10/31/18	.0502	.124
11/30/18	.074103	.0844
12/31/18	.046694	.0759
1/31/19	.0072871	.0168
2/28/19	.013718	.0312
3/31/19	.00965	.0446
4/30/19	.020197	.0328
5/31/19	.057881	.1274
6/30/19	.076887	.1262
7/31/19	.103977	.2122
8/31/19	.177955	.2191
9/30/19	.138617	.2446
10/31/19	.066787	.1153
11/30/19	.099447	.119
12/31/19	.075087	.1079
1/31/20	.002061	.006
2/29/20	.005196	.0147
3/31/20	.024694	.0444
4/30/20	.025503	.0395
5/31/20	.054835	.0914
6/30/20	.073263	.1289
7/31/20	.107229	.10914
8/31/20	.104326	.1288
9/30/20	.119093	.1421

Permit NM0028355

Version # 0

Outfall 048A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
10/31/20	.089639	.1059
11/30/20	.113303	.1336
12/31/20	.081903	<.1197
1/31/21	.003068	.0066
2/28/21	.004744	.0375
3/31/21	.00513	.038
4/30/21	.02284	.037
5/31/21	.09701	.1261
6/30/21	.13407	.1692
7/31/21	.163419	.1874
8/31/21	.155503	.1786
9/30/21	.1184	.1819
10/31/21	.125274	.151
11/30/21	.135033	.1578
12/31/21	.086607	.1397

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0
4/30/18	0
5/31/18	0
6/30/18	0
7/31/18	0
8/31/18	0
9/30/18	0
10/31/18	0
11/30/18	0
12/31/18	0
1/31/19	0

DMR Summary

Permit NM0028355

Version # 0

Outfall 048A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
2/28/19	0
3/31/19	0
4/30/19	0
5/31/19	0
6/30/19	0
7/31/19	0
8/31/19	0
9/30/19	0
10/31/19	0
11/30/19	0
12/31/19	NODI=9
1/31/20	0
2/29/20	0
3/31/20	.77
4/30/20	.23
5/31/20	0
6/30/20	0
7/31/20	0
8/31/20	0
9/30/20	0
10/31/20	0
11/30/20	0
12/31/20	0
1/31/21	0
2/28/21	0
3/31/21	0
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	0
9/30/21	0
10/31/21	0
11/30/21	0
12/31/21	0

Outfall 048Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	.7	.7
6/30/17	<.57	<.57

Permit NM0028355

Version # 0

Outfall 048Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values		
9/30/17	<.57	<.57
12/31/17	<.57	<.57
3/31/18	5.9	5.9
6/30/18	<.57	<.57
9/30/18	<.591	<.613
12/31/18	1.43	1.43
3/31/19	.619	.619
6/30/19	1.6	1.6
9/30/19	<.57	<.57
12/31/19	<.57	<.57
3/31/20	5.7	5.7
6/30/20	.9	.9
9/30/20	1.94	1.94
12/31/20	<.57	<.57
3/31/21	2.2	2.2
6/30/21	<.57	<.57
9/30/21	<.57	<.57
12/31/21	<.57	<.57

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	.172	.172
6/30/17	.0797	.0797
9/30/17	.0683	.0683
12/31/17	.148	.148
3/31/18	.146	.146
6/30/18	.105	.105
9/30/18	.127	.14
12/31/18	.253	.253
3/31/19	.227	.227
6/30/19	<.049	<.149
9/30/19	.228	.228
12/31/19	.119	.119
3/31/20	<.185	<.185
6/30/20	<.119	<.119
9/30/20	.162	.162
12/31/20	.25	.25
3/31/21	.199	.199
6/30/21	.192	.192
9/30/21	<.184	<.184
12/31/21	.102	.102

Outfall 048T

DMR Summary

Permit NM0028355

Version # 0

Outfall 048T

01032 Chromium, hexavalent [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=9	NODI=9

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	.597	.597

Outfall 048Y

01002 Arsenic, total [as As] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.013	.013
DMR Values		
9/30/17	.00294	.00294
9/30/18	.00282	.00282
9/30/19	.0033	.0033
9/30/20	<.002	<.002
9/30/21	.00323	.00323

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Permit NM0028355

Version # 0

Outfall 048Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0233	
DMR Values		
9/30/17	.00149	
9/30/18	.000878	
9/30/19	.0027	
9/30/20	.00078	
9/30/21	.00142	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	7.592	
DMR Values		
9/30/17	<.0193	
9/30/18	<.0193	
9/30/19	<.0193	
9/30/20	<.0193	
9/30/21	<.0193	

71890 Mercury, dissolved [as Hg] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	1.4	
DMR Values		
9/30/17	<.067	
9/30/18	<.067	
9/30/19	<.067	
9/30/20	<.067	
9/30/21	<.067	

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Permit NM0028355

Version # 0

Outfall 048Y

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.77	
DMR Values		
9/30/17	<.067	
9/30/18	<.067	
9/30/19	.0009	
9/30/20	<.067	
9/30/21	<.067	

Outfall 051A

00340 Oxygen demand, chem. [high level] [COD] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Monthly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	125	125
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 051A

00340 Oxygen demand, chem. [high level] [COD] / Location 1 / Season 0 / Base

DMR Values		
5/31/19	NODI=C	NODI=C
6/30/19	15.5	15.5
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	8.95	8.95
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<14.8	<14.8
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	16.5	16.5
5/31/21	<8.95	<8.95
6/30/21	<8.95	<8.95
7/31/21	34.2	34.2
8/31/21	<8.95	<8.95
9/30/21	155	155
10/31/21	25.3	25.3
11/30/21	45	45
12/31/21	NODI=C	NODI=C

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C

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Outfall 051A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	7.2	7.2
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	8.1	8.1
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	8.1	8.1
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	7.4	7.4
5/31/21	7.4	7.4
6/30/21	7.4	7.4
7/31/21	7.5	7.7
8/31/21	7.4	7.6
9/30/21	7.1	7.1
10/31/21	7.2	7.2
11/30/21	7.3	7.3
12/31/21	NODI=C	NODI=C

DMR Summary

Permit NM0028355

Version # 0

Outfall 051A

00400 pH / Location 1 / Season 0 / Base

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Monthly

Limit				
Limit Unit Desc	Pounds per Day	Pounds per Day	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX	MO AVG	DAILY MX
Limit Value	73	109	30	45
DMR Values				
1/31/17	NODI=C	NODI=C	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C	NODI=C	NODI=C
6/30/19	.101	.101	<.57	<.57
7/31/19	NODI=C	NODI=C	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C	NODI=C	NODI=C
3/31/20	.152	.152	<1.12	<1.12
4/30/20	NODI=C	NODI=C	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C	NODI=C	NODI=C

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Version # 0

Outfall 051A

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values				
7/31/20	NODI=C	NODI=C	NODI=C	NODI=C
8/31/20	.136	.136	1.6	1.6
9/30/20	NODI=C	NODI=C	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C	NODI=C	NODI=C
4/30/21	<.0886	<.0886	<.57	<.57
5/31/21	<.0757	<.0757	.57	<.57
6/30/21	.16	.16	1.1	1.1
7/31/21	<.0705	<.0705	<.57	<.57
8/31/21	<.0297	<.0297	<.57	<.57
9/30/21	<.0802	<.0802	<.57	<.57
10/31/21	<.0829	<.0829	<.57	<.57
11/30/21	<.0826	<.0826	<.57	<.57
12/31/21	NODI=C	NODI=C	NODI=C	NODI=C

00900 Hardness, total [as CaCO3] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Three per Week

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	MO AV MN
Limit Value	50
DMR Values	
1/31/17	NODI=C
2/28/17	NODI=C
3/31/17	NODI=C
4/30/17	NODI=C
5/31/17	NODI=C
6/30/17	NODI=C
7/31/17	NODI=C
8/31/17	NODI=C
9/30/17	NODI=C
10/31/17	NODI=C
11/30/17	NODI=C
12/31/17	NODI=C
1/31/18	NODI=C
2/28/18	NODI=C
3/31/18	NODI=C
4/30/18	NODI=C
5/31/18	NODI=C
6/30/18	NODI=C
7/31/18	NODI=C
8/31/18	NODI=C
9/30/18	NODI=C
10/31/18	NODI=C

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Outfall 051A

00900 Hardness, total [as CaCO3] / Location 1 / Season 0 / Base

DMR Values	
11/30/18	NODI=C
12/31/18	NODI=C
1/31/19	NODI=C
2/28/19	NODI=C
3/31/19	NODI=C
4/30/19	NODI=C
5/31/19	NODI=C
6/30/19	74.4
7/31/19	NODI=C
8/31/19	NODI=C
9/30/19	NODI=C
10/31/19	NODI=C
11/30/19	NODI=C
12/31/19	NODI=C
1/31/20	NODI=C
2/29/20	NODI=C
3/31/20	83.8
4/30/20	NODI=C
5/31/20	NODI=C
6/30/20	NODI=C
7/31/20	NODI=C
8/31/20	85.1
9/30/20	NODI=C
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=C
1/31/21	NODI=C
2/28/21	NODI=C
3/31/21	NODI=C
4/30/21	66.9
5/31/21	85
6/30/21	82.8
7/31/21	80.7
8/31/21	74.6
9/30/21	72.6
10/31/21	72.8
11/30/21	75.7
12/31/21	NODI=C

01034 Chromium, total [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	1.34	2.68
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C

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01034 Chromium, total [as Cr] / Location 1 / Season 0 / Base

DMR Values		
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	0	0
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.003	<.003
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<.003	<.003
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	<.003	<.003
5/31/21	<.003	<.003
6/30/21	<.003	<.003

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Outfall 051A

01034 Chromium, total [as Cr] / Location 1 / Season 0 / Base

DMR Values		
7/31/21	<.003	<.003
8/31/21	<.0036	<.003
9/30/21	<.003	<.003
10/31/21	<.003	<.003
11/30/21	<.003	<.003
12/31/21	NODI=C	NODI=C

01042 Copper, total [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Three per Week

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value	.014	.014
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	.0106	.011
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C

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01042 Copper, total [as Cu] / Location 1 / Season 0 / Base

DMR Values		
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.00101	<.00101
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	.00494	.00494
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	.0025	.00409
5/31/21	.00112	.00112
6/30/21	.00076	.00076
7/31/21	.00147	.00223
8/31/21	.000579	.00089
9/30/21	<.000762	<.000778
10/31/21	.000549	.000549
11/30/21	.000578	.000647
12/31/21	NODI=C	NODI=C

01051 Lead, total [as Pb] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.076	.115
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C

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01051 Lead, total [as Pb] / Location 1 / Season 0 / Base

DMR Values		
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	.000175	.000524
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.0005	<.0005
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<.0005	<.0005
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	<.0005	<.0005
5/31/21	<.005	<.005
6/30/21	<.0005	<.0005
7/31/21	<.0005	<.0005
8/31/21	<.0005	<.0005
9/30/21	<.0005	<.0005
10/31/21	<.0005	<.0005
11/30/21	<.0005	<.0005
12/31/21	NODI=C	NODI=C

01092 Zinc, total [as Zn] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Three per Week

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Version # 0

Outfall 051A

01092 Zinc, total [as Zn] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value	.191	.191
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	0	0
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.0033	<.0033
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<.0033	<.0033
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C

DMR Summary

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01092 Zinc, total [as Zn] / Location 1 / Season 0 / Base

DMR Values		
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	<.00574	<.00817
5/31/21	<.0033	<.0033
6/30/21	<.0033	<.0033
7/31/21	<.0033	<.0033
8/31/21	<.0033	<.0033
9/30/21	<.00493	<.00656
10/31/21	Not Received	Not Received
11/30/21	<.0033	<.0033
12/31/21	NODI=C	NODI=C

11503 Radium 226 + radium 228, total / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	30
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C

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11503 Radium 226 + radium 228, total / Location 1 / Season 0 / Base

DMR Values		
5/31/19	NODI=C	NODI=C
6/30/19	0	0
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.708	<.708
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<.4474	<.4637
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	<.45	<.505
5/31/21	<.652	<.908
6/30/21	<.6264	<.995
7/31/21	1.16	1.6
8/31/21	.191	.191
9/30/21	<.32	<.406
10/31/21	Not Received	Not Received
11/30/21	<.225	<.384
12/31/21	NODI=C	NODI=C

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Estimate	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C

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50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	.021345	.021345
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	.016253	.016253
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	.010209	.010209
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	.018104	.018629
5/31/21	.015926	.015926
6/30/21	.017392	.017392
7/31/21	.016185	.017543
8/31/21	.571	.982
9/30/21	.017043	.017221
10/31/21	Not Received	Not Received
11/30/21	.012218	.017374
12/31/21	NODI=C	NODI=C

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Outfall 051A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	NODI=C
2/28/17	NODI=C
3/31/17	NODI=C
4/30/17	NODI=C
5/31/17	NODI=C
6/30/17	NODI=C
7/31/17	NODI=C
8/31/17	NODI=C
9/30/17	NODI=C
10/31/17	NODI=C
11/30/17	NODI=C
12/31/17	NODI=C
1/31/18	NODI=C
2/28/18	NODI=C
3/31/18	NODI=C
4/30/18	NODI=C
5/31/18	NODI=C
6/30/18	NODI=C
7/31/18	NODI=C
8/31/18	NODI=C
9/30/18	NODI=C
10/31/18	NODI=C
11/30/18	NODI=C
12/31/18	NODI=C
1/31/19	NODI=C
2/28/19	NODI=C
3/31/19	NODI=C
4/30/19	NODI=C
5/31/19	NODI=C
6/30/19	0
7/31/19	NODI=C
8/31/19	NODI=C
9/30/19	NODI=C
10/31/19	NODI=C
11/30/19	NODI=C
12/31/19	NODI=C
1/31/20	NODI=C
2/29/20	NODI=C
3/31/20	0
4/30/20	NODI=C
5/31/20	NODI=C
6/30/20	NODI=C

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Outfall 051A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
7/31/20	NODI=C
8/31/20	0
9/30/20	NODI=C
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=C
1/31/21	NODI=C
2/28/21	NODI=C
3/31/21	NODI=C
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	.019
9/30/21	0
10/31/21	Not Received
11/30/21	0
12/31/21	NODI=C

61209 Perchlorate [ClO4] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C

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61209 Perchlorate [ClO4] / Location 1 / Season 0 / Base

DMR Values		
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	<.00005	<.00005
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	<.00005	<.00005
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	<.00005	<.00005
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	<.00005	<.00005
5/31/21	<.00005	<.00005
6/30/21	<.00005	<.00005
7/31/21	<.00005	<.00005
8/31/21	<.00005	<.00005
9/30/21	<.00005	<.00005
10/31/21	Not Received	Not Received
11/30/21	<.00005	<.00005
12/31/21	NODI=C	NODI=C

78141 Organics, total toxic [TTO] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Monthly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	1	1
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C

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Outfall 051A

78141 Organics, total toxic [TTO] / Location 1 / Season 0 / Base

DMR Values		
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	.0134	.0134
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	.0067	<.0067
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	.00157	.00157
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	.00305	.00305
5/31/21	.00303	.00303
6/30/21	.00419	.00419

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78141 Organics, total toxic [TTO] / Location 1 / Season 0 / Base

DMR Values		
7/31/21	.00136	.00136
8/31/21	.00831	.00831
9/30/21	.00579	.00579
10/31/21	Not Received	Not Received
11/30/21	.00059	.00059
12/31/21	NODI=C	NODI=C

Outfall 051T

01027 Cadmium, total [as Cd] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.0003	<.0003

01032 Chromium, hexavalent [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.003	<.003

01033 Chromium, trivalent [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.003	<.003

01067 Nickel, total [as Ni] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Permit Term

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Version # 0

Outfall 051T

01067 Nickel, total [as Ni] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	.00641	.00659

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.0193	<.0193

01147 Selenium, total [as Se] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.002	<.002

39516 Polychlorinated biphenyls [PCBs] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Permit Term

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	0	0

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Permit Term

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Version # 0

Outfall 051T

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	<.000067	<.000067

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	.659	.659

Outfall 055A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C

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Outfall 055A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Estimate	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		

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Outfall 055A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C

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50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

81364 RDX, total / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Month

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.2	.66
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C

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Outfall 055A

81364 RDX, total / Location 1 / Season 0 / Base

DMR Values		
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Outfall 055Q

00340 Oxygen demand, chem. [high level] [COD] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	125	125
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 055Q

00340 Oxygen demand, chem. [high level] [COD] / Location 1 / Season 0 / Base

DMR Values		
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	45
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00556 Oil & Grease / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Permit NM0028355

Version # 0

Outfall 055Q

00556 Oil & Grease / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	15	15
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

78141 Organics, total toxic [TTO] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	1	1
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 055Q

78141 Organics, total toxic [TTO] / Location 1 / Season 0 / Base

DMR Values		
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

81360 Trinitrotoluene [TNT], total / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.02	
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Outfall 055T

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 055T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base
80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=C	NODI=C

Outfall 055Y

61209 Perchlorate [ClO4] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

Outfall 113A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	7.2	7.4
2/28/17	7.2	8.2
3/31/17	7.1	8
4/30/17	7.2	7.3
5/31/17	7.3	7.5
6/30/17	7.3	7.7
7/31/17	7.3	8.2
8/31/17	7.4	8.3
9/30/17	7.4	8.2

DMR Summary

Permit NM0028355

Version # 0

Outfall 113A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
10/31/17	7.2	7.5
11/30/17	7	8
12/31/17	6.8	7.5
1/31/18	7.1	7.3
2/28/18	7.2	7.3
3/31/18	7.1	7.5
4/30/18	7	7.2
5/31/18	7	7.2
6/30/18	6.7	7
7/31/18	7	8
8/31/18	6.8	7.1
9/30/18	6.8	7.2
10/31/18	7	7.2
11/30/18	7	7.1
12/31/18	6.9	8.5
1/31/19	6.7	7.1
2/28/19	6.9	7.2
3/31/19	7	8.2
4/30/19	NODI=C	NODI=C
5/31/19	7	7
6/30/19	6.8	7.3
7/31/19	6.8	8.1
8/31/19	6.8	7.1
9/30/19	7.2	7.3
10/31/19	7	7.2
11/30/19	6.2	7.2
12/31/19	6.9	7.1
1/31/20	6.9	7.2
2/29/20	6.8	7.3
3/31/20	8.9	7.2
4/30/20	7.1	7.3
5/31/20	7.1	7.1
6/30/20	7	7.7
7/31/20	7.3	7.8
8/31/20	7.2	7.3
9/30/20	7.2	7.7
10/31/20	7.1	7.4
11/30/20	7.1	7.2
12/31/20	7.1	7.5
1/31/21	7.2	7.4
2/28/21	7.1	7.2
3/31/21	7.2	7.4
4/30/21	7	7.2
5/31/21	7.2	7.6
6/30/21	7.5	7.9
7/31/21	7.6	7.8
8/31/21	7.2	7.6
9/30/21	7	7.3
10/31/21	7.3	7.6
11/30/21	7.4	7.4
12/31/21	8.7	7.6

Permit NM0028355

Version # 0

Outfall 113A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.000493	.00128
2/28/17	.001171	.0056
3/31/17	.003053	.01331
4/30/17	.006244	.03285
5/31/17	.001183	.00317
6/30/17	.001802	.0038
7/31/17	.001234	.00218
8/31/17	.000957	.00275
9/30/17	.001983	.00385
10/31/17	.000453	.00138
11/30/17	.000729	.00826
12/31/17	.000664	.00653
1/31/18	.000254	.00175
2/28/18	.0004446	.00106
3/31/18	.000769	.00229
4/30/18	.001786	.00628
5/31/18	.003529	.01459
6/30/18	.002411	.01137
7/31/18	.003297	.01319
8/31/18	.003496	.01112
9/30/18	.000205	.00076
10/31/18	.0002219	.00056
11/30/18	.000381	.00163
12/31/18	.0005311	.00108
1/31/19	.000203	.00083
2/28/19	.000386	.00169
3/31/19	.000103	.00015
4/30/19	NODI=C	NODI=C
5/31/19	.00069	.00241
6/30/19	.000315	.00096
7/31/19	.002895	.00905
8/31/19	.0009608	.0042
9/30/19	.001255	.00471
10/31/19	.000869	.00225
11/30/19	.000417	.0014
12/31/19	.001008	.00338
1/31/20	.000093	.00026
2/29/20	.000279	.00178
3/31/20	.000504	.00243
4/30/20	.000487	.00243
5/31/20	.00147	.0039
6/30/20	.000215	.0006
7/31/20	.000207	.00058
8/31/20	.00194	.00067

Permit NM0028355

Version # 0

Outfall 113A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
9/30/20	.000172	.00076
10/31/20	.004796	.02841
11/30/20	.00059	.0017
12/31/20	.000389	.00078
1/31/21	.0000445	.0013
2/28/21	.000338	.00079
3/31/21	.000744	.0014
4/30/21	.000969	.0018
5/31/21	.000253	.00105
6/30/21	.001345	.00353
7/31/21	.001617	.0024
8/31/21	.001692	.00482
9/30/21	.001817	.008
10/31/21	.000268	.00086
11/30/21	.001481	.0054
12/31/21	.000278	.00128

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0
4/30/18	0
5/31/18	0
6/30/18	0
7/31/18	0
8/31/18	0
9/30/18	0
10/31/18	0
11/30/18	0
12/31/18	0

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Version # 0

Outfall 113A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
1/31/19	0
2/28/19	0
3/31/19	0
4/30/19	NODI=C
5/31/19	0
6/30/19	0
7/31/19	0
8/31/19	0
9/30/19	0
10/31/19	0
11/30/19	0
12/31/19	0
1/31/20	0
2/29/20	0
3/31/20	0
4/30/20	0
5/31/20	0
6/30/20	0
7/31/20	0
8/31/20	0
9/30/20	0
10/31/20	0
11/30/20	0
12/31/20	0
1/31/21	0
2/28/21	0
3/31/21	0
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	0
9/30/21	0
10/31/21	0
11/30/21	0
12/31/21	0

Outfall 113Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	5.68	5.68

Permit NM0028355

Version # 0

Outfall 113Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values		
6/30/17	<.57	<.57
9/30/17	<.57	<.57
12/31/17	<.57	<.57
3/31/18	.6	.6
6/30/18	<.57	<.57
9/30/18	<.57	<.57
12/31/18	1.43	1.43
3/31/19	1.3	1.3
6/30/19	8.42	8.42
9/30/19	<.588	<.588
12/31/19	1.6	1.6
3/31/20	.7	.7
6/30/20	.8	.8
9/30/20	<.57	<.57
12/31/20	<.57	<.57
3/31/21	.9	.9
6/30/21	1.3	1.3
9/30/21	<.57	<.57
12/31/21	2.3	2.3

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	.074	.074
6/30/17	.0952	.0952
9/30/17	.0948	.0948
12/31/17	.144	.144
3/31/18	.103	.103
6/30/18	.144	.144
9/30/18	.0982	.102
12/31/18	.193	.193
3/31/19	3.0408	.0408
6/30/19	<.0458	<.0458
9/30/19	<.079	<.079
12/31/19	<.0921	<.0921
3/31/20	<.0438	<.0438
6/30/20	<.0583	<.0583
9/30/20	.139	.139
12/31/20	1.32	1.32
3/31/21	2.23	2.23
6/30/21	2.03	2.03
9/30/21	1.51	1.51
12/31/21	1.35	1.35

Permit NM0028355

Version # 0

Outfall 113T
Outfall 113T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	0	0

Outfall 113Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0218	
DMR Values		
9/30/17	.00395	
9/30/18	.00489	
9/30/19	.0026	
9/30/20	**.0435**	
9/30/21	.0144	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	6.904	
DMR Values		
9/30/17	<.0193	
9/30/18	<.0193	
9/30/19	<.0193	
9/30/20	<.0193	
9/30/21	<.0193	

Outfall 13SA

DMR Summary

Permit NM0028355

Version # 0

Outfall 13SA

00310 BOD, 5-day, 20 deg. C / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Monthly

Limit				
Limit Unit Desc	Pounds per Day	Pounds per Day	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX	MO AVG	DAILY MX
Limit Value	73	109	30	45
DMR Values				
1/31/17	NODI=C	NODI=C	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 13SA

00310 BOD, 5-day, 20 deg. C / Location 1 / Season 0 / Base

DMR Values				
9/30/20	NODI=C	NODI=C	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C	NODI=C	NODI=C

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 13SA

00400 pH / Location 1 / Season 0 / Base

DMR Values		
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Monthly

Limit				
Limit Unit Desc	Pounds per Day	Pounds per Day	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX	MO AVG	DAILY MX
Limit Value	73	109	30	45
DMR Values				
1/31/17	NODI=C	NODI=C	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C	NODI=C	NODI=C

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Outfall 13SA

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values				
5/31/17	NODI=C	NODI=C	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C	NODI=C	NODI=C

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Outfall 13SA

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values				
9/30/21	NODI=C	NODI=C	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C	NODI=C	NODI=C

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Continuous

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C

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Outfall 13SA

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	NODI=C
2/28/17	NODI=C
3/31/17	NODI=C
4/30/17	NODI=C
5/31/17	NODI=C
6/30/17	NODI=C
7/31/17	NODI=C
8/31/17	NODI=C
9/30/17	NODI=C
10/31/17	NODI=C
11/30/17	NODI=C
12/31/17	NODI=C
1/31/18	NODI=C
2/28/18	NODI=C
3/31/18	NODI=C
4/30/18	NODI=C

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Outfall 13SA

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
5/31/18	NODI=C
6/30/18	NODI=C
7/31/18	NODI=C
8/31/18	NODI=C
9/30/18	NODI=C
10/31/18	NODI=C
11/30/18	NODI=C
12/31/18	NODI=C
1/31/19	NODI=C
2/28/19	NODI=C
3/31/19	NODI=C
4/30/19	NODI=C
5/31/19	NODI=C
6/30/19	NODI=C
7/31/19	NODI=C
8/31/19	NODI=C
9/30/19	NODI=C
10/31/19	NODI=C
11/30/19	NODI=C
12/31/19	NODI=C
1/31/20	NODI=C
2/29/20	NODI=C
3/31/20	NODI=C
4/30/20	NODI=C
5/31/20	NODI=C
6/30/20	NODI=C
7/31/20	NODI=C
8/31/20	NODI=C
9/30/20	NODI=C
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=C
1/31/21	NODI=C
2/28/21	NODI=C
3/31/21	NODI=C
4/30/21	NODI=C
5/31/21	NODI=C
6/30/21	NODI=C
7/31/21	NODI=C
8/31/21	NODI=C
9/30/21	NODI=C
10/31/21	NODI=C
11/30/21	NODI=C
12/31/21	NODI=C

51040 E. coli / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Twice per Month

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Outfall 13SA

51040 E. coli / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Colony Forming Uni	Colony Forming Uni
Statistical Base	MOAV GEO	DAILY MX
Limit Value	548	2507
DMR Values		
1/31/17	NODI=C	NODI=C
2/28/17	NODI=C	NODI=C
3/31/17	NODI=C	NODI=C
4/30/17	NODI=C	NODI=C
5/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
7/31/17	NODI=C	NODI=C
8/31/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
10/31/17	NODI=C	NODI=C
11/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
1/31/18	NODI=C	NODI=C
2/28/18	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
4/30/18	NODI=C	NODI=C
5/31/18	NODI=C	NODI=C
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C

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Outfall 13SA

51040 E. coli / Location 1 / Season 0 / Base

DMR Values		
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Outfall 13ST

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=C	NODI=C

Outfall 13SY

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	3.514	
DMR Values		
9/30/17	NODI=C	
9/30/18	NODI=C	
9/30/19	NODI=C	
9/30/20	NODI=C	
9/30/21	NODI=C	

39516 Polychlorinated biphenyls [PCBs] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis

Permit NM0028355

Version # 0

Outfall 13SY

39516 Polychlorinated biphenyls [PCBs] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Annual

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value	.00064	.00064
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

Outfall 160A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	8.2	8.6
2/28/17	8.5	8.6
3/31/17	7.6	8.4
4/30/17	7.8	8.1
5/31/17	8.1	8.3
6/30/17	8.4	8.5
7/31/17	8.5	8.6
8/31/17	7.6	8.5
9/30/17	8.3	8.6
10/31/17	8.3	8.7
11/30/17	8.5	8.6
12/31/17	8.2	8.6
1/31/18	7.4	8.5
2/28/18	7.2	8
3/31/18	7.1	8.2
4/30/18	7	8.4
5/31/18	7.5	7.5
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall 160A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00720 Cyanide, total [as CN] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Monthly

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	0	0
2/28/17	0	0
3/31/17	0	0
4/30/17	0	0
5/31/17	0	0

DMR Summary

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00720 Cyanide, total [as CN] / Location 1 / Season 0 / Base

DMR Values		
6/30/17	0	0
7/31/17	0	0
8/31/17	0	0
9/30/17	0	0
10/31/17	<11.7	21.8
11/30/17	0	0
12/31/17	0	0
1/31/18	0	0
2/28/18	0	0
3/31/18	0	0
4/30/18	0	0
5/31/18	0	0
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

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00720 Cyanide, total [as CN] / Location 1 / Season 0 / Base

DMR Values		
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

01042 Copper, total [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Three per Week

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.021	.032
DMR Values		
1/31/17	.000856	.00123
2/28/17	.0000499	.000569
3/31/17	.00382	.00748
4/30/17	<.000449	.000591
5/31/17	.000472	.000692
6/30/17	.00161	.00224
7/31/17	.00182	.0022
8/31/17	.000884	.00317
9/30/17	.00163	.00184
10/31/17	.001592	.00221
11/30/17	.0012	.0017
12/31/17	.000762	.00105
1/31/18	.00114	.00155
2/28/18	<.00145	.00165
3/31/18	.00124	.00147
4/30/18	<.00154	.00308
5/31/18	.00182	.00194
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C

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01042 Copper, total [as Cu] / Location 1 / Season 0 / Base

DMR Values		
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.001912	.003059
2/28/17	.002145	.002695
3/31/17	.003485	.00443
4/30/17	.00227	.003204
5/31/17	.003379	.004068
6/30/17	.003479	.004919
7/31/17	.00299	.004493
8/31/17	.003338	.00481
9/30/17	.00404	.004573
10/31/17	.003451	.00647
11/30/17	.003993	.005058
12/31/17	.003798	.00477
1/31/18	.002928	.00396
2/28/18	.001289	.0016
3/31/18	.001243	.001484
4/30/18	.001039	.001335
5/31/18	.000873	.001139

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50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
6/30/18	NODI=C	NODI=C
7/31/18	NODI=C	NODI=C
8/31/18	NODI=C	NODI=C
9/30/18	NODI=C	NODI=C
10/31/18	NODI=C	NODI=C
11/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
1/31/19	NODI=C	NODI=C
2/28/19	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
4/30/19	NODI=C	NODI=C
5/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
7/31/19	NODI=C	NODI=C
8/31/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
10/31/19	NODI=C	NODI=C
11/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
1/31/20	NODI=C	NODI=C
2/29/20	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
4/30/20	NODI=C	NODI=C
5/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
7/31/20	NODI=C	NODI=C
8/31/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
10/31/20	NODI=C	NODI=C
11/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
1/31/21	NODI=C	NODI=C
2/28/21	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
4/30/21	NODI=C	NODI=C
5/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
7/31/21	NODI=C	NODI=C
8/31/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
10/31/21	NODI=C	NODI=C
11/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

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Outfall 160A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0
4/30/18	0
5/31/18	0
6/30/18	NODI=C
7/31/18	NODI=C
8/31/18	NODI=C
9/30/18	NODI=C
10/31/18	NODI=C
11/30/18	NODI=C
12/31/18	NODI=C
1/31/19	NODI=C
2/28/19	NODI=C
3/31/19	NODI=C
4/30/19	NODI=C
5/31/19	NODI=C
6/30/19	NODI=C
7/31/19	NODI=C
8/31/19	NODI=C
9/30/19	NODI=C
10/31/19	NODI=C
11/30/19	NODI=C
12/31/19	NODI=C
1/31/20	NODI=C
2/29/20	NODI=C
3/31/20	NODI=C
4/30/20	NODI=C
5/31/20	NODI=C
6/30/20	NODI=C
7/31/20	NODI=C
8/31/20	NODI=C
9/30/20	NODI=C
10/31/20	NODI=C
11/30/20	NODI=C
12/31/20	NODI=C

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Outfall 160A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
1/31/21	NODI=C
2/28/21	NODI=C
3/31/21	NODI=C
4/30/21	NODI=C
5/31/21	NODI=C
6/30/21	NODI=C
7/31/21	NODI=C
8/31/21	NODI=C
9/30/21	NODI=C
10/31/21	NODI=C
11/30/21	NODI=C
12/31/21	NODI=C

Outfall 160Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	<.6	<.6
6/30/17	<.57	<.57
9/30/17	<.57	<.57
12/31/17	<.57	<.57
3/31/18	<.57	<.57
6/30/18	<.57	<.57
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

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Version # 0

Outfall 160Q

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	.0451	.0451
6/30/17	.0631	.0631
9/30/17	3.1	3.1
12/31/17	.366	.366
3/31/18	.0928	.0928
6/30/18	<.0953	<.0953
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
12/31/19	NODI=C	NODI=C
3/31/20	NODI=C	NODI=C
6/30/20	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C
12/31/21	NODI=C	NODI=C

Outfall 160T

01032 Chromium, hexavalent [as Cr] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	NODI=9	NODI=9

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	0	0

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Outfall 160T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Outfall 160Y

01002 Arsenic, total [as As] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	.013	.018
DMR Values		
9/30/17	.00259	.00259
9/30/18	NODI=E	NODI=E
9/30/19	NODI=C	NODI=C
9/30/20	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	4.29	
DMR Values		
9/30/17	<.0193	
9/30/18	NODI=E	
9/30/19	NODI=C	
9/30/20	NODI=C	
9/30/21	NODI=C	

Outfall 181A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6	9
DMR Values		
1/31/17	8.5	8.7
2/28/17	8.4	8.6
3/31/17	8.2	8.5

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Outfall 181A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
4/30/17	8.3	8.5
5/31/17	8.2	8.4
6/30/17	8.3	8.4
7/31/17	8.1	8.4
8/31/17	8.1	8.4
9/30/17	8.4	8.4
10/31/17	8.3	8.4
11/30/17	8	8.5
12/31/17	7.6	8.5
1/31/18	8.2	8.7
2/28/18	8.3	8.5
3/31/18	8	8.5
4/30/18	8.1	8.3
5/31/18	8	8.3
6/30/18	7.9	8.4
7/31/18	8.3	8.5
8/31/18	7.9	8.2
9/30/18	8.1	8.6
10/31/18	8.3	8.4
11/30/18	8.4	8.5
12/31/18	8.1	8.4
1/31/19	7.6	8.3
2/28/19	7.2	8.4
3/31/19	8.2	8.6
4/30/19	8.4	8.5
5/31/19	8.3	8.7
6/30/19	8.4	8.5
7/31/19	8.3	8.6
8/31/19	8.2	8.5
9/30/19	8.3	8.4
10/31/19	8.1	8.4
11/30/19	8.3	8.7
12/31/19	7.9	8.4
1/31/20	8.2	8.7
2/29/20	7.7	8.7
3/31/20	7.6	8.3
4/30/20	7.8	8.5
5/31/20	8.9	7.9
6/30/20	7.6	8.2
7/31/20	7.1	8.4
8/31/20	8.3	8.5
9/30/20	8.1	8.3
10/31/20	8.2	8.5
11/30/20	7.9	8.4
12/31/20	7.4	8.5
1/31/21	8.2	8.4
2/28/21	7.8	8.2
3/31/21	7.5	8.3
4/30/21	8.1	8.7
5/31/21	8.3	8.5
6/30/21	8.2	8.5
7/31/21	7.6	8.5

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Outfall 181A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
8/31/21	7.6	8
9/30/21	8.1	8.4
10/31/21	7.4	8.4
11/30/21	7.4	8
12/31/21	7.5	8.6

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Estimate	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.006129	.028631
2/28/17	.004955	.008576
3/31/17	.005601	.009394
4/30/17	.011237	.008447
5/31/17	.010537	.016263
6/30/17	.011317	.015761
7/31/17	.01141	.013688
8/31/17	.010086	.012345
9/30/17	.00849	.013309
10/31/17	.008333	.010406
11/30/17	.007708	.011837
12/31/17	.005864	.010391
1/31/18	.004956	.00859
2/28/18	.005424	.0087
3/31/18	.009652	.02803
4/30/18	.01442	.03199
5/31/18	.0011896	.023251
6/30/18	.01421	.02525
7/31/18	.011648	.016687
8/31/18	.008028	.01037
9/30/18	.01023	.02227
10/31/18	.005863	.01755
11/30/18	.003262	.004714
12/31/18	.004079	.00594
1/31/19	.007073	.013884
2/28/19	.005434	.007205
3/31/19	.007607	.012081
4/30/19	.007704	.010978
5/31/19	.010041	.012176
6/30/19	.012313	.015975
7/31/19	.012843	.016563
8/31/19	.010542	.019762
9/30/19	.00658	.012515
10/31/19	.005478	.007658
11/30/19	.005648	.009962

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50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
12/31/19	.005735	.007927
1/31/20	.005914	.008685
2/29/20	.004448	.006417
3/31/20	.005064	.010558
4/30/20	.006618	.007884
5/31/20	.00812	.01535
6/30/20	.010677	.017287
7/31/20	.010216	.00058
8/31/20	.013612	.021302
9/30/20	.012888	.01767
10/31/20	.010619	.015027
11/30/20	.006694	.009933
12/31/20	.009591	.0323
1/31/21	.006883	.010729
2/28/21	.007467	.011547
3/31/21	.007502	.015544
4/30/21	.01418	.025018
5/31/21	.004197	.007037
6/30/21	.004211	.007037
7/31/21	.007789	.009298
8/31/21	.007132	.017908
9/30/21	.010846	.026373
10/31/21	.009241	.020515
11/30/21	.013437	.02735
12/31/21	.006251	.008504

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0

DMR Summary

Permit NM0028355

Version # 0

Outfall 181A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
4/30/18	0
5/31/18	0
6/30/18	0
7/31/18	0
8/31/18	0
9/30/18	0
10/31/18	0
11/30/18	0
12/31/18	0
1/31/19	0
2/28/19	0
3/31/19	0
4/30/19	0
5/31/19	0
6/30/19	.04
7/31/19	.01
8/31/19	0
9/30/19	0
10/31/19	0
11/30/19	.01
12/31/19	0
1/31/20	0
2/29/20	0
3/31/20	0
4/30/20	0
5/31/20	0
6/30/20	0
7/31/20	0
8/31/20	0
9/30/20	0
10/31/20	0
11/30/20	0
12/31/20	0
1/31/21	0
2/28/21	0
3/31/21	0
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	0
9/30/21	0
10/31/21	0
11/30/21	0
12/31/21	0

Outfall 181Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Permit NM0028355

Version # 0

Outfall 181Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	.7	.7
6/30/17	<.57	<.57
9/30/17	<.57	<.57
12/31/17	<.57	<.57
3/31/18	<.57	<.57
6/30/18	<.57	<.57
9/30/18	<.57	<.57
12/31/18	<.594	<.594
3/31/19	3	3
6/30/19	.8	.8
9/30/19	<.57	<.57
12/31/19	.6	.6
3/31/20	<.57	<.57
6/30/20	<.57	<.57
9/30/20	.9	.9
12/31/20	.057	<.57
3/31/21	<.57	<.57
6/30/21	3.4	3.4
9/30/21	<.57	<.57
12/31/21	<.57	<.57

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	4.58	4.58
6/30/17	2.51	2.51
9/30/17	2.83	2.83
12/31/17	2.94	2.94
3/31/18	2.54	2.54
6/30/18	2.79	2.79
9/30/18	2.63	2.66
12/31/18	2.45	2.45
3/31/19	3.41	3.41
6/30/19	2.24	2.24
9/30/19	2.53	2.53
12/31/19	2.66	2.66
3/31/20	2.15	2.15

Permit NM0028355

Version # 0

Outfall 181Q

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

DMR Values		
6/30/20	2.34	2.34
9/30/20	3.59	3.59
12/31/20	2.25	2.25
3/31/21	2.88	2.88
6/30/21	3.11	3.11
9/30/21	2.94	2.94
12/31/21	3.8	3.8

Outfall 181T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	.403	.403

Outfall 181Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0115	
DMR Values		
9/30/17	.00258	
9/30/18	.00243	
9/30/19	.00229	
9/30/20	.0024	
9/30/21	.000784	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

DMR Summary

Permit NM0028355

Version # 0

Outfall 181Y

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	2.724	
DMR Values		
9/30/17	<.0193	
9/30/18	<.0193	
9/30/19	<.193	
9/30/20	<.0193	
9/30/21	<.0193	

Outfall 199A

00400 pH / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit		
Limit Unit Desc	Standard Units	Standard Units
Statistical Base	MINIMUM	MAXIMUM
Limit Value	6.6	8.8
DMR Values		
1/31/17	7.4	7.7
2/28/17	7.7	7.9
3/31/17	7.7	7.9
4/30/17	7.7	7.8
5/31/17	7.7	7.9
6/30/17	7.8	7.8
7/31/17	7.7	7.9
8/31/17	7.9	8
9/30/17	7.9	8
10/31/17	7.7	8.4
11/30/17	7.3	7.9
12/31/17	7.5	7.5
1/31/18	7.6	7.9
2/28/18	7.7	7.8
3/31/18	7.6	7.9
4/30/18	7.5	8.3
5/31/18	7.3	7.7
6/30/18	7.3	7.7
7/31/18	7.7	7.9
8/31/18	7.9	8.1
9/30/18	7.7	8.1
10/31/18	7.8	7.9
11/30/18	8	8.1
12/31/18	8	8.4
1/31/19	8	8.1
2/28/19	7.8	8.2
3/31/19	7.6	8
4/30/19	7.3	7.9

Permit NM0028355

Version # 0

Outfall 199A

00400 pH / Location 1 / Season 0 / Base

DMR Values		
5/31/19	7.6	8.1
6/30/19	7.3	8.4
7/31/19	8	8
8/31/19	7.3	8
9/30/19	7.6	7.9
10/31/19	7.6	8.2
11/30/19	7.4	8.7
12/31/19	7.1	7.9
1/31/20	7.3	7.7
2/29/20	7.6	8.2
3/31/20	7.4	8.4
4/30/20	7.8	8
5/31/20	6.9	7.6
6/30/20	7.7	8.1
7/31/20	7.3	8.1
8/31/20	8.2	8.4
9/30/20	7.7	8.2
10/31/20	7.7	8
11/30/20	7.9	8
12/31/20	7.6	7.9
1/31/21	7.1	7.9
2/28/21	7.3	8.2
3/31/21	7.9	8.1
4/30/21	7.8	8.3
5/31/21	7.9	8
6/30/21	7.6	8.1
7/31/21	7.7	8
8/31/21	7.5	8.2
9/30/21	7.7	8
10/31/21	7.9	8.2
11/30/21	7.5	8
12/31/21	7.1	7.9

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Record (manual)	Daily

Limit		
Limit Unit Desc	Million Gallons per	Million Gallons per
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
1/31/17	.026794	.0338
2/28/17	.031882	.0356
3/31/17	.03339	.0361
4/30/17	.032317	.036
5/31/17	.032781	.0353
6/30/17	.02813	.0309
7/31/17	.026829	.031
8/31/17	.030726	.0339

Permit NM0028355

Version # 0

Outfall 199A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

DMR Values		
9/30/17	.03288	.0356
10/31/17	.031094	.033
11/30/17	.031473	.0335
12/31/17	.030574	.0316
1/31/18	.032958	.0356
2/28/18	.031386	.0343
3/31/18	.029981	.0323
4/30/18	.032457	.0367
5/31/18	.036645	.0441
6/30/18	.045666	.0494
7/31/18	.044987	.0491
8/31/18	.045219	.0487
9/30/18	.03989	.074
10/31/18	.036587	.047
11/30/18	.034207	.0373
12/31/18	.030266	.0345
1/31/19	.030023	.0318
2/28/19	.030707	.0343
3/31/19	.034203	.0419
4/30/19	.03803	.0412
5/31/19	.037603	.0462
6/30/19	.038907	.0458
7/31/19	.047113	.0545
8/31/19	.036739	.0501
9/30/19	.029167	.0432
10/31/19	.034523	.0386
11/30/19	.030147	.0368
12/31/19	.028413	.0329
1/31/20	.026358	.0351
2/29/20	.0279	.0319
3/31/20	.028981	.0326
4/30/20	.03283	.04
5/31/20	.039281	.044
6/30/20	.043463	.0489
7/31/20	.044961	.0528
8/31/20	.044961	.0528
9/30/20	.037683	.046
10/31/20	.035597	.0416
11/30/20	.03057	.041
12/31/20	.028503	.0323
1/31/21	.025123	.0299
2/28/21	.022925	.033
3/31/21	.031387	.031387
4/30/21	.034073	.0392
5/31/21	.037255	.0426
6/30/21	.040647	.0518
7/31/21	.034548	.0404
8/31/21	.035784	.0381
9/30/21	.03639	.0396
10/31/21	.035955	.0411
11/30/21	.03495	.0396
12/31/21	.0314445	.037

DMR Summary

Permit NM0028355

Version # 0

Outfall 199A

50050 Flow, in conduit or thru treatment plant / Location 1 / Season 0 / Base

50060 Chlorine, total residual / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Weekly

Limit	
Limit Unit Desc	Milligrams per Liter
Statistical Base	INST MAX
Limit Value	.011
DMR Values	
1/31/17	0
2/28/17	0
3/31/17	0
4/30/17	0
5/31/17	0
6/30/17	0
7/31/17	0
8/31/17	0
9/30/17	0
10/31/17	0
11/30/17	0
12/31/17	0
1/31/18	0
2/28/18	0
3/31/18	0
4/30/18	.98
5/31/18	0
6/30/18	0
7/31/18	0
8/31/18	0
9/30/18	0
10/31/18	0
11/30/18	0
12/31/18	0
1/31/19	0
2/28/19	0
3/31/19	0
4/30/19	0
5/31/19	0
6/30/19	.42
7/31/19	0
8/31/19	0
9/30/19	0
10/31/19	0
11/30/19	.32
12/31/19	0
1/31/20	0
2/29/20	0
3/31/20	0
4/30/20	0
5/31/20	0
6/30/20	0

DMR Summary

Permit NM0028355

Version # 0

Outfall 199A

50060 Chlorine, total residual / Location 1 / Season 0 / Base

DMR Values	
7/31/20	0
8/31/20	0
9/30/20	0
10/31/20	0
11/30/20	0
12/31/20	0
1/31/21	0
2/28/21	0
3/31/21	0
4/30/21	0
5/31/21	0
6/30/21	0
7/31/21	0
8/31/21	0
9/30/21	0
10/31/21	0
11/30/21	0
12/31/21	0

Outfall 199Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	30	100
DMR Values		
3/31/17	4.7	4.7
6/30/17	.7	.7
9/30/17	1.5	1.5
12/31/17	.957	.957
3/31/18	1	1
6/30/18	1	1
9/30/18	1.74	1.8
12/31/18	<.57	<.57
3/31/19	.7	.7
6/30/19	29.6	29.6
9/30/19	1.4	1.4
12/31/19	3	3
3/31/20	3	3
6/30/20	1.4	1.4
9/30/20	4.3	4.3
12/31/20	17.2	30.3
3/31/21	3.1	3.1
6/30/21	4.43	4.43
9/30/21	4.3	4.3

Permit NM0028355

Version # 0

Outfall 199Q

00530 Solids, total suspended / Location 1 / Season 0 / Base

DMR Values		
12/31/21	.7	.7

00665 Phosphorus, total [as P] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Quarterly

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value	20	40
DMR Values		
3/31/17	.634	.634
6/30/17	.348	.348
9/30/17	.409	.409
12/31/17	.339	.339
3/31/18	.338	.338
6/30/18	.369	.369
9/30/18	.293	.319
12/31/18	.306	.306
3/31/19	.364	.364
6/30/19	.38	.38
9/30/19	.224	.224
12/31/19	.278	.278
3/31/20	<.0561	<.0561
6/30/20	.964	.964
9/30/20	.298	.298
12/31/20	.821	.821
3/31/21	.19	.19
6/30/21	.3695	.3695
9/30/21	.236	.236
12/31/21	.035	.035

Outfall 199T

80029 Alpha gross radioactivity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	Grab	Once per Permit Term

Limit		
Limit Unit Desc	Picocuries per Liter	Picocuries per Liter
Statistical Base	MO AVG	DAILY MX
Limit Value		
DMR Values		
9/30/19	0	0

Outfall 199Y

Permit NM0028355

Version # 0

Outfall 199Y

01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base
01040 Copper, dissolved [as Cu] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.0073	
DMR Values		
9/30/17	.00303	
9/30/18	.000642	
9/30/19	.00201	
9/30/20	.00664	
9/30/21	.00447	

01104 Aluminum, total recoverable / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Milligrams per Liter	Milligrams per Liter
Statistical Base	DAILY MX	DAILY MX
Limit Value	.9889	
DMR Values		
9/30/17	<.0193	
9/30/18	<.0193	
9/30/19	<.0193	
9/30/20	<.0193	
9/30/21	<.0193	

71890 Mercury, dissolved [as Hg] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	DAILY MX	DAILY MX
Limit Value	.77	
DMR Values		
9/30/17	<.067	
9/30/18	<.067	
9/30/19	<.067	
9/30/20	<.067	
9/30/21	<.067	

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Permit NM0028355

Version # 0

Outfall 199Y

71900 Mercury, total [as Hg] / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/17	Grab	Annual
10/1/17	9/30/19	Grab	Annual

Limit		
Limit Unit Desc	Micrograms per Lite	Micrograms per Lite
Statistical Base	DAILY MX	DAILY MX
Limit Value	.77	
DMR Values		
9/30/17	<.067	
9/30/18	<.067	
9/30/19	.0027	
9/30/20	<.067	
9/30/21	<.067	

Outfall T022Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		

Permit NM0028355

Version # 0

Outfall T022Y

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

DMR Values		
9/30/19	Not Received	Not Received

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

Outfall T048Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		

Permit NM0028355

Version # 0

Outfall T048Y

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

DMR Values		
9/30/19	Not Received	Not Received

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

Outfall T051Q

22414 Whole effluent toxicity / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
3/1/16	9/30/19	3 Hour Composite	Quarterly

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value	100	100

Permit NM0028355

Version # 0

Outfall T051Q

22414 Whole effluent toxicity / Location 1 / Season 0 / Base

DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	56	56
9/30/19	NODI=C	NODI=C
12/31/19	NODI=9	NODI=9
3/31/20	100	100
6/30/20	NODI=C	NODI=C
9/30/20	Not Received	100
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	100	100
12/31/21	0	0

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=9	NODI=9
9/30/19	NODI=C	NODI=C
12/31/19	NODI=9	NODI=9
3/31/20	NODI=9	NODI=9
6/30/20	NODI=C	NODI=C
9/30/20	Not Received	Not Received
12/31/20	NODI=C	NODI=C
3/31/21	NODI=9	NODI=9
6/30/21	NODI=C	NODI=C
9/30/21	NODI=9	NODI=9
12/31/21	NODI=9	NODI=9

Permit NM0028355

Version # 0

Outfall T051Q

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	NODI=9	NODI=9
9/30/19	NODI=C	NODI=C
12/31/19	NODI=9	NODI=9
3/31/20	NODI=9	NODI=9
6/30/20	NODI=C	NODI=C
9/30/20	Not Received	Not Received
12/31/20	NODI=C	NODI=C
3/31/21	NODI=9	NODI=9
6/30/21	NODI=C	NODI=C
9/30/21	NODI=9	NODI=9
12/31/21	NODI=9	NODI=9

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Quarterly

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	1	1
9/30/19	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall T051Q

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

DMR Values		
12/31/19	NODI=9	NODI=9
3/31/20	0	0
6/30/20	NODI=C	NODI=C
9/30/20	0	0
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	0	0
12/31/21	0	0

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Quarterly

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	56	56
9/30/19	NODI=C	NODI=C
12/31/19	NODI=9	NODI=9
3/31/20	100	100
6/30/20	NODI=C	NODI=C
9/30/20	100	100
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	100	100
12/31/21	100	100

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Quarterly

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		

Permit NM0028355

Version # 0

Outfall T051Q

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

DMR Values		
3/31/17	NODI=C	NODI=C
6/30/17	NODI=C	NODI=C
9/30/17	NODI=C	NODI=C
12/31/17	NODI=C	NODI=C
3/31/18	NODI=C	NODI=C
6/30/18	Not Received	Not Received
9/30/18	NODI=C	NODI=C
12/31/18	NODI=C	NODI=C
3/31/19	NODI=C	NODI=C
6/30/19	17.28	17.28
9/30/19	NODI=C	NODI=C
12/31/19	NODI=9	NODI=9
3/31/20	0	0
6/30/20	NODI=C	NODI=C
9/30/20	0	0
12/31/20	NODI=C	NODI=C
3/31/21	NODI=C	NODI=C
6/30/21	NODI=C	NODI=C
9/30/21	7.21	7.21
12/31/21	5.73	5.73

Outfall T113Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis

Permit NM0028355

Version # 0

Outfall T113Y

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

Outfall T13SY

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall T13SY

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 2 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 2 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C
9/30/19	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 2 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/17	NODI=C	NODI=C

Permit NM0028355

Version # 0

Outfall T13SY

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

DMR Values		
9/30/19	NODI=C	NODI=C
9/30/21	NODI=C	NODI=C

Outfall T160Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

DMR Summary

Permit NM0028355

Version # 0

Outfall T160Y

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

Outfall T181Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

DMR Summary

Permit NM0028355

Version # 0

Outfall T181Y

TEM3D Low Flow Pass/Fail Static Renewal 48Hr Acute Daphnia pulex / Location 1 / Season 0

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOM3D NOEC Lethal Static Renewal 48HR Acute Daphnia pulex / Location 1 / Season 0 / Bas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQM3D Coef Of Var Statre 48Hr Acute D. Pulex / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	3 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	48HR MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

Outfall TX1Y

22415 Whole effluent toxicity - retest #1 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	See Permit

Permit NM0028355

Version # 0

Outfall TX1Y

22416 Whole effluent toxicity - retest #2 / Location 1 / Season 0 / Base

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

51443 Whole Effluent Toxicity - Retest #3 / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	See Permit

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TGP3B Pass/Fail Static Renewal 7 Day Chronic Ceriodaphnia / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TGP6C Pass/Fail Statre 7Day Chronic Pimephales Promelas / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TLP3B Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia /

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Permit NM0028355

Version # 0

Outfall TX1Y

TLP3B Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Ceriodaphnia dubia /

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TLP6C Low Flow Pass/Fail Survival Test Static Renewal 7 Day Chronic Pimephales promelas

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Pass=0; Fail=1	Pass=0; Fail=1
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOP3B NOEC Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia / Location 1 / Season

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TOP6C NOEC Lethal Static Renewal 7 Day Chronic Pimephales promelas / Location 1 / Seaso

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TPP3B NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia / Location 1 / Sea

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Permit NM0028355

Version # 0

Outfall TX1Y

TPP3B NOEC Sub-Lethal Static Renewal 7 Day Chronic Ceriodaphnia dubia / Location 1 / Sea

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TPP6C NOEC Sub-Lethal Static Renewal 7 Day Chronic Pimephales promelas / Location 1 / S

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQP3B Coef Of Var Statre 7Day Chronic Ceriodaphnia / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TQP6C Coef Of Var Statre 7Day Chronic Pimephales / Location 1 / Season 0 / Base

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TXP3B LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia / Location 1 /

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

DMR Summary

Permit NM0028355

Version # 0

Outfall TX1Y

TXP3B LOEC Lethal Survival Static Renewal 7 Day Chronic Ceriodaphnia dubia / Location 1 /

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TXP6C LOEC Lethal Survival Static Renewal 7 Day Chronic Pimephales promelas / Location

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TYP3B LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Ceriodaphnia dubia / L

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

TYP6C LOEC Sub-Lethal Reproduction Static Renewal 7 Day Chronic Pimephales promelas /

Limit Start Date	Limit End Date	Sample Type	Frequency of Analysis
10/1/14	9/30/19	24 Hour Composite	Once per 5 Years

Limit		
Limit Unit Desc	Percent	Percent
Statistical Base	7 DA MIN	MO AV MN
Limit Value		
DMR Values		
9/30/19	Not Received	Not Received

EXHIBIT K

Location ID	Measurement/Sample Date	Parameter Name	Result	Result Units	Lab Method
NPDES Outfall 051051	06/18/2019	Flow (Daily)	0.021345	Mgal/day	FIELD
NPDES Outfall 051051	03/10/2020	Flow (Daily)	0.016253	Mgal/day	FIELD
NPDES Outfall 051051	08/18/2020	Flow (Daily)	0.010209	Mgal/day	FIELD
NPDES Outfall 051051	04/27/2021	Flow (Daily)	0.018629	Mgal/day	FIELD
NPDES Outfall 051051	04/29/2021	Flow (Daily)	0.017579	Mgal/day	FIELD
NPDES Outfall 051051	05/18/2021	Flow (Daily)	0.015926	Mgal/day	FIELD
NPDES Outfall 051051	06/22/2021	Flow (Daily)	0.017392	Mgal/day	FIELD
NPDES Outfall 051051	07/20/2021	Flow (Daily)	0.014827	Mgal/day	FIELD
NPDES Outfall 051051	07/28/2021	Flow (Daily)	0.017543	Mgal/day	FIELD
NPDES Outfall 051051	08/10/2021	Flow (Daily)	0.006248	Mgal/day	FIELD
NPDES Outfall 051051	08/24/2021	Flow (Daily)	0.017109	Mgal/day	FIELD
NPDES Outfall 051051	08/26/2021	Flow (Daily)	0.017388	Mgal/day	FIELD
NPDES Outfall 051051	08/31/2021	Flow (Daily)	0.017331	Mgal/day	FIELD
NPDES Outfall 051051	09/14/2021	Flow (Daily)	0.016865	Mgal/day	FIELD
NPDES Outfall 051051	09/21/2021	Flow (Daily)	0.017221	Mgal/day	FIELD
NPDES Outfall 051051	10/26/2021	Flow (Daily)	0.017435	Mgal/day	FIELD
NPDES Outfall 051051	11/09/2021	Flow (Daily)	0.017374	Mgal/day	FIELD
NPDES Outfall 051051	11/29/2021	Flow (Daily)	0.007062	Mgal/day	FIELD
NPDES Outfall 051051	01/11/2022	Flow (Daily)	0.016726	Mgal/day	FIELD
NPDES Outfall 051051	01/13/2022	Flow (Daily)	0.007596	Mgal/day	FIELD

EXHIBIT L

Los Alamos NATIONAL LABORATORY

Environmental Compliance Programs Group
Los Alamos National Laboratory
P.O. Box 1663, K490
Los Alamos, NM 87545
505-667-0666

National Nuclear Security Administration
Los Alamos Field Office
3747 West Jemez Road, A316
Los Alamos, NM 87544
505-665-7314/Fax 505-667-5948

Symbol: EPC-DO: 21-173
LA-UR: 21-25189
Locates Action No.: U1801172
Date: 15-Jun-2021

Ms. Michelle Hunter, Chief
Ground Water Quality Bureau
New Mexico Environment Department
Harold Runnels Building, Room N2261
1190 St. Francis Drive
P.O. Box 26110
Santa Fe, NM 87502

Subject: Request for an Extension of Time to Complete SET Pipeline Water Tightness Testing, Radioactive Liquid Waste Treatment Facility

Dear Ms. Hunter:

On March 14, 2021 the New Mexico Environment Department (NMED) granted the U.S. Department of Energy, National Nuclear Security Administration's (DOE/NNSA) and Triad National Security, LLC's (Triad's) February 4, 2021 temporary permission request (EPC-DO: 21-014) to continue treated wastewater discharge from the Technical Area (TA)-50 Radioactive Liquid Waste Treatment Facility (RLWTF) to the Mechanical Evaporator System (MES) and Outfall 051. That request included tightness testing requirements for the pipeline connection from the TA-50 RLWTF to the TA-52 Solar Evaporation Tank System (SET).

Pursuant to NMED's approval, NNSA/Triad may seek an extension of time in which to perform an obligation in the temporary permission, for good cause, by sending a written request to NMED that states the length of the requested extension and describes the basis for the extension. NNSA/Triad request an extension of time to complete water tightness testing of the pipeline connecting the TA-50 RLWTF and the TA-52 SET.

NNSA/Triad is required to demonstrate the pipeline conveying treated wastewater from the TA-50 RLWTF to the TA-52 SET—a pipeline without secondary containment—is not leaking. NNSA/Triad previously submitted a 15-month extension request for this activity on April 21, 2020 (EPC-DO: 20-101) to extend the deadline through August 25, 2021. NNSA/Triad would like to delay conducting water tightness testing for the SET pipeline for the following reasons:

1. The RLWTF-SET pipeline was successfully tested for water tightness during construction of the SET in 2012.

2. The SET has yet to be placed into service since constructed.

3. The SET will not be placed into service until the following upgrades are completed:

    a. Pursuant to permit Condition No. 30, a Moisture Monitoring System for the SET must be installed and approved for use by NMED.

    b. The existing leak detection alarm system, situated between the SET's primary and secondary liners, will be rebuilt.

    c. The existing primary liner will be replaced with a new liner of equal or better quality.

The Moisture Monitoring System for the SET has been installed. The required completion report is being prepared and will be submitted in accordance with temporary permission requirements. Based on the above factors NNSA/Triad request an extension of time to 15 months after re-issuance of DP-1132 to complete the required water tightness testing of the RLWTF-SET pipeline until all items listed are completed.

We appreciate your attention to this matter. Please contact Karen E. Armijo at (505) 665-7314 or Karen.Armijo@nnsa.doe.gov, or contact William J. Foley at (505) 665-8423 or bfoley@lanl.gov if you have questions regarding this extension request.

Sincerely,

TAUNIA VAN VALKENBURG (Affiliate)
Digitally signed by TAUNIA VAN VALKENBURG (Affiliate)
Date: 2021.06.14 10:56:58 -06'00'

Taunia Van Valkenburg
Group Leader
Environmental Compliance Programs
Triad National Security, LLC

Sincerely,

Karen E. Armijo
Digitally signed by Karen E. Armijo
Date: 2021.06.15 08:40:13 -06'00'

Karen E. Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
U.S. Department of Energy

Copy: Steve Pullen, NMED-GWQB, steve.pullen@state.nm.us
Andrew Romero, NMED-GWQB, AndrewC.Romero@state.nm.us
Karen E. Armijo, NA-LA, Karen.Armijo@nnsa.doe.gov
Silas DeRoma, NA-LA, silas.deroma@nnsa.doe.gov
Marcus Pinzel, NA-LA, marcus.pinzel@nnsa.doe.gov
Darlene Rodriguez, NA-LA, darlene.rodriguez@nnsa.doe.gov
Michael W. Hazen, Triad, ALDESHQSS, mhazen@lanl.gov
William R. Mairson, Triad, ALDESHQSS, wmairson@lanl.gov
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Jennifer Payne, Triad, EPC-DO, jpayne@lanl.gov
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Denise C. Gelston, Triad, TA55-CWF, dgelston@lanl.gov
Randal S. Johnson, Triad, TA55-RLW, randyj@lanl.gov
Alvin M. Aragon, Triad, TA55-RLW, alaragon@lanl.gov

Sarah S. Holcomb, Triad, EPC-CP, sholcomb@lanl.gov
William J. Foley, Triad, EPC-CP, bfoley@lanl.gov
Susan L. McMichael, Triad, GC-ESH, smcmichael@lanl.gov
locatesteam@lanl.gov
epccorrespondence@lanl.gov
eshqss-dcrm@lanl.gov

EXHIBIT M

NPDES PERMIT NO. NM0028355
RESPONSE TO COMMENTS

RECEIVED ON THE SUBJECT DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IN ACCORDANCE WITH REGULATIONS LISTED AT 40CFR124.17

APPLICANT: Triad National Security, LLC
Los Alamos National Laboratory
PO Box 1663, K491 3747 West Jemez Road
Los Alamos, New Mexico 87544

AND

U.S. Department of Energy
Los Alamos Area Office, A316
Los Alamos, NM 87544

ISSUING OFFICE: U.S. Environmental Protection Agency
Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102

PREPARED BY: Ruben Alayon-Gonzalez & Isaac Chen (Retired)
Environmental Engineer
Permitting Section (6WD-PE)
NPDES Permits Branch
Water Division
VOICE: 214-665-2785
EMAIL: alayon-gonzalez.ruben@epa.gov

PERMIT ACTION: Final permit modification decision and response to comments received on the draft NPDES permit modification publicly noticed on November 28, 2019 and re-opened on January 30, 2021.

DATE PREPARED: March 24, 2022

Note: Inclusion of permit requirements to comply with conditions of certification are required by 40 CFR § 124.55(a)(2). Challenges to conditions of certification must be made through NMED. In any case, if conditions are based on procedures or guidelines, rather state regulations, EPA would treat those conditions as recommendations or comments, and would respond accordingly. If any condition will result in less stringent permit conditions, then EPA would treat those conditions as a statement of the extent to which the permit could be made less stringent (see 40 CFR §124.53(e)(3)).
Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of March 24, 2022.

SIGNIFICANT CHANGES FROM DRAFT PERMIT

There are significant changes from the draft permit modification publicly noticed on November 28, 2019. All changes and their rationale for changes can be found in the following response to conditions of certification or response to comments.

State Certification

State certification letter from Ms. Shelly Lemon (NMED) to Mr. Charles Maguire (EPA), dated November 30, 2020, conditionally certified that the discharge will comply with the applicable provisions of the Clean Water Act and with appropriate requirements of State law. NMED also included comments in the certification letter. On December 30, 2020, the U.S. Department of Energy National Nuclear Security Administration and Triad National Security, LLC submitted a petition for review of Conditions #1 and #2 of the original State Certification to Secretary of the Environment Department. NMED issued this modified certification on January 31, 2022, as a result of the petition for review and resulting Settlement Agreement between NMED and DOE/Triad.

The modified certification does not include any changes to the background and regulatory support for the following conditions, include the following modifications to the State's CWA Section 401 Certification of LANL Industrial Discharge Permit, NPDES Permit No. NM0028355 dated November 30, 2020:

Original Certification	**Topic**	**Modified Certification**
Condition #1	Related to PFAS Monitoring	Deleted
Condition #2	Related to PCBs	Condition #1
Condition #3	Other limitations	Condition #2
Comments	Various	Added Comment #3

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Comments from Public.....31

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Conditions of Certification from New Mexico Environment Department

Condition #1: Related to PCBs:

(a) The U.S Department of Energy National Security Administration and Triad National Security, LLC (collectively "DOE/Triad") have discharge monitoring data (using EPA Method 1668) for Outfall 051 from sampling performed in June 2019 and March 2020 (see Attachment 1). Analytical data is not available for the other outfalls; however, the 2019 Permit Re-Application Form 2Cs for these outfalls indicated that PCBs were "Believed Absent" based upon the composition of the water discharged. Table 1 below provides the basis for reasonable potential at each outfall.

(b) Where reasonable potential exists ("Yes"), DOE/Triad shall monitor for Total PCBs in effluent from Outfalls 001, 13S, and 03A027 once per year (see Table 1).

(c) The ten (10) outfalls identified in Table 1 discharge to PCB-impaired surface waters; however, water quality data are only available for a sub-set of the outfalls. Therefore, where reasonable potential may exist ("Unknown"), DOE/Triad shall confirm that PCBs are absent from the discharges by sampling for Total PCBs in effluent from Outfalls 03A048, 03A113, 03A160, 03A181, 03A199, and 03A022 once during the first year of coverage, or when the facility next discharges if no discharge occurs during the first year (Table 1).

(d) Samples shall be analyzed by an accredited lab for Total PCBs in accordance with EPA Method 1668C or later revisions. Method and analysis shall be sufficiently sensitive to evaluate the data against the New Mexico water quality standards (Total PCB < 0.00064 ug/L).

(e) If data from the confirmation sampling indicate that reasonable potential exists (RP = "Yes") at one or more of the outfalls identified in Table 1, then DOE/Triad shall monitor for Total PCBs once per year at the outfall(s) for the remainder of the permit term. If data indicate "No" RP, then no additional monitoring is required.

Table 1. Summary of Reasonable Potential (RP) Information for PCBs at NPDES Outfalls

Outfall ID	Long-Term Average (ug/L)[a]	RP Y/N	Basis of RP Determination	Total PCB Maximum Discharge Limitation (ug/L)[b]	Monitoring Requirements	Monitoring Frequency
001	0.002654	Yes	• DMR Monitoring Data using EPA 1668 • "Believed Present"	0.00064	24-hour composite	1/Year
13S	ND	Yes	• "Believed Present"	0.00064	24-hour composite	1/Year
03A027	0.001335	Yes	• DMR Monitoring Data using EPA 1668 • "Believed Present"	0.00064	Grab sample	1/Year

Outfall ID	Long-Term Average (ug/L)[a]	RP Y/N	Basis of RP Determination	Total PCB Maximum Discharge Limitation (ug/L)[b]	Monitoring Requirements	Monitoring Frequency
051	0.000000	No	• DMR Monitoring Data using EPA 1668 • "Believed Present"	N/A	None – data indicate no RP	N/A
03A048	ND	UNK	• No data • Composition of the discharge is potable water and water treatment chemicals that do not contain PCBs • "Believed Absent" • Impaired	0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]
03A113	ND	UNK		0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]
03A160	ND	UNK		0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]
03A181	ND	UNK		0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]
03A199	ND	UNK		0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]
03A022	ND	UNK	• No data • Composition of the discharge is potable water and water treatment chemicals that do not contain PCBs, and stormwater from a roof • "Believed Absent" • Impaired	0.00064	"Believed Absent" confirmation sample required for impairment.	1/permit term[c]

a. Long-Term Average based upon monitoring data collected at the outfall during the current permit term and analyzed using EPA Method 1668.

b. NMWQS = 0.00064 ug/L

c. If data indicate that reasonable potential exists, then TRIAD/DOE shall monitor for Total PCBs once per year for the remainder of the permit

Outfall ID	Long-Term Average (ug/L)[a]	RP Y/N	Basis of RP Determination	Total PCB Maximum Discharge Limitation (ug/L)[b]	Monitoring Requirements	Monitoring Frequency
term. If data indicate no RP, then no additional monitoring is required. NMWQS = New Mexico Water Quality Standard; ND = no data; UNK = Unknown; RP = Reasonable Potential						

EPA Response: Monitoring requirements for PCBs are added to the final permit in order to comply with conditions of certification as required by 40 CFR §124.55(a)(2).

Condition #2: Based on NMED's review of the Reasonable Potential (RP) spreadsheets public noticed with the draft permit and data submitted to EPA by the Permittees, it appears that limitations for Thallium are necessary at several outfalls. Monitoring requirements shall exist in the final permit at outfalls where there is an impairment in the receiving waterbody, regardless of whether RP exists.

Outfall	Added Limits/Monitoring	Monitoring Frequency
001	Limit for thallium; monitoring for temperature – compliance schedule ok.	1/year
13S	Limit for thallium; monitoring for gross alpha.	1/year
03A027	No additional limits or monitoring.	N/A
03A048	No RP for limits but monitoring for all impairments: gross alpha; cyanide; total mercury; total selenium.	1/year
03A113	No additional limits or monitoring.	1/year
03A160	No additional limits or monitoring.	1/year
03A181	RP must be determined for copper. Add limits and/or monitoring requirements based on RP determination.	1/year if RP determined
03A199	Add limit for thallium.	1/year
03A022	Retain monitoring requirements for copper.	1/year
05A055	No additional limits or monitoring.	N/A
051	Add limit for thallium.	1/year

EPA Response: EPA has added limits and monitoring requirements to the final permit in order to comply with conditions of certification as required by 40 CFR § 124.55(a)(2). The Permittee submitted two sets of effluent data in their permit renewal Application package. Additionally, the permittee submitted updated data during the comment period since there was equipment changes and discharges that occurred during the one-year comment period. EPA re-ran RP with the updated set of data and added some limits/monitoring requirements.

Updated Limits/Monitoring on each outfall are as follows:

Outfall No	Added Limits/Monitoring
001	Limit for thallium, compliance schedule for temperature.
13S	Limit for thallium; monitoring for gross alpha.
03A027	No additional limits or monitoring.

Outfall No	Added Limits/Monitoring
03A048	Monitoring for impairments: gross alpha; cyanide; mercury; selenium. Limit for chromium VI since RP was detected.
03A113	Limit for chromium VI since RP was detected.
03A160	RP was re-ran. Limit for thallium. Monitoring for impairment: gross alpha. Chromium VI was deleted since no RP was detected. No RP detected for mercury, selenium and cyanide nor impaired.
03A181	RP was re-ran. No RP detected for copper. Monitoring for impairments: copper; gross alpha. Chromium VI was deleted since no RP was detected.
03A199	Limit for thallium. Removed zinc and copper limit as no RP was detected. Monitoring for impairment: copper.
03A022	Monitoring for impairments: copper; gross alpha; mercury.
05A055	No additional limits or monitoring.
051	Limit for thallium, corrected limit for copper.

Comments from New Mexico Environment Department

Comment #1: There appears to be a typo in Footnote 5 for Outfall 001. NMED proposes revision to delete last sentence "6T3 Temperature of 20°C (68°F) shall not be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days. ~~Daily maximum temperature shall be determined by 6T3 temperature record when 6T3 temperature."~~

EPA Response: EPA concurs and deleted the typo.

Comment #2: Please ensure that all the notices of change submitted by LANL since the 2019 NPDES Permit Re-Application was submitted on March 26, 2019, are incorporated.

- Revision 3 to Outfall 03A048 fact sheet to add a Chlorine monitoring system, submitted July 14, 2020 (EPC-DO: 20-222)
- Revision 3 to the Outfall 001 Flow Diagram which addresses improvements made to reduce the temperature of effluent discharged to the outfall as follows:
    - Piping modification to allow for effluent stored in the Reuse Tank to be routed (as needed) to the power plant cooling tower prior to discharge.
    - Piping modification to allow for blowdown associated with the Strategic Computing Complex (SCC) Cooling Towers to be routed to the Reuse Tank where (as needed) it can either be recycled to SERF or routed to the power plant cooling tower prior to discharge.

This change will not increase the volume or impact the effluent quality (i.e., no new chemicals) other than to reduce the temperature. This change was submitted as a notice of change on July 16, 2020 (EPC-DO: 20-221).

- Renovation of the power plant. This change was submitted as a notice of change on November 26, 2019 (EPC-DO: 19-430). This will increase the volumes at Outfall 001 as indicated below and were incorporated into the antidegradation calculations.

Table 5
Potential New Future Flow Rates and Frequencies for Discharges to Outfall 001

Potential Future Source	Frequency		Flow Rates and Volumes				
	Days/Week	Months	Average (MGD)	Maximum (MGD)	Average Volume (GPD)	Maximum Volume (GPD)	Duration (days)
SCC Cooling Towers [a, b]	7.0	12	0.074	0.201	74,436	201,056	365
Power Plant Co-Generation Renovation	7.0	12	0.170	0.220	169,920	220,320	365
~~TA-55-006 Cooling Towers [c]~~	~~7.0~~	~~12~~	~~0.009~~	~~0.032~~	~~9,365~~	~~31,986~~	~~365~~
Future Outfall 001 Total [c]	7.0	12	~~0.199~~ 0.311	~~0.439~~ 0.751	~~199,320~~ 310,595	~~438,586~~ 752,463	365

a. See the permit section provided for Outfall 03A027 for a schematic showing this change.
b. Cooling tower blowdown calculated for the operation of 15 towers.
~~b.~~c. Total volume estimate for four source facilities: SWWS Effluent; SERF Effluent; SCC Cooling Towers; and Power Plant Co-Generation Renovation. All four facilities are hydraulically connected and eventually discharge water to Outfall 001 regardless of flow path.

- Startup of 5 additional Cooling Towers at the SCC. This modification was included as a future change in the 2019 NPDES Permit Application submitted March 26, 2019 (see EPC-DO: 19-106).

EPA Response: Comment noted for the record. Above noted process modifications are reflected in the descriptions of outfalls in the final permit. RP screenings for these two outfalls reflect new flow information.

Comment #3: NMED suggests that the downstream user Pueblo of San Ildefonso be included in the reporting requirements as found in Part I.C Reporting of Monitoring Results, Part II.B 24-hour Oral Reporting, and for any noncompliance which may endanger public health of the environment. The contact information for Pueblo of San Ildefonso is:

Raymond Martinez,
Director of Environment and Cultural Preservation
02 Tunyo Po
Santa Fe, NM87506
rmartinez@sanipueblo.org
505-455-4127

EPA Response: EPA will add the downstream Pueblo of San Ildefonso Tribe to be included in the 24-hour oral reporting requirements.

Comments Received at Public Hearing on January 15, 2020

Comment #1: James Bearzi, Glorieta Geoscience, an environmental and water resources consulting firm for the Buckman Direct Diversion Board, the governing body for the Buckman Direct Diversion. The Buckman Direct Diversion is on the Rio Grande, approximately three miles downstream of Otowi Bridge, near the location of the confluence of Los Alamos Canyon and the Rio Grande.The board is,therefore,

understandably concerned about runoff Los Alamos Canyon and its tributaries. NPDES Permit No. NM0028355 covers 11 outfalls or locations of discharge of industrial pollutants to waters of the U.S., in this case, the Rio Grande. One of those outfalls, known as T-53 03A048, discharges treated cooling water that originates at TA-53 to a tributary of Los Alamos Canyon and is, therefore, of particular interest to the board. Our comments concern two areas. One is how EPA determined the effluent limits and the constituents that would be subject to them in the permit, and then the second area is those limits themselves. We have found certain discrepancies between the fact sheet and the permit that need to be clarified before a final permit is issued. We also have noted that the approach for determining reasonable potential appears to change throughout the fact sheet from the beginning to the end depending on the findings as one goes through the fact sheet. We would appreciate EPA clarifying how they calculated reasonable potential, particularly as it relates to consistency between the approach used between outfalls and among constituents for each outfall. The current permit for this outfall has effluent limitations for TRA, Total Arsenic, Dissolved Copper, Total Mercury, and Dissolved Mercury. EPA proposes to delete limitations and monitoring requirements from the final permit based on its analysis. The current permit also has monitoring requirements for gross alpha and chromium (VI). EPA proposes to remove those monitoring requirements also, subject to their analysis. Because of the confusion that I've already alluded to, the Board is concerned that these proposed changes to the permit may not sufficiently protect the BDD, and we urge EPA to retain the more stringent monitoring and effluent limitations in the existing permit.

EPA Response: EPA regulations at § 122.44(d)(1)(i) state, "Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard, including [s]tate narrative criteria for water quality." Whether a specific pollutant would be limited or not is based on whether the loading of that pollutant demonstrates reasonable potential (RP) or not. If the combined loading of the discharge and the loading of the upstream receiving waterbody will cause the downstream water to exceed the applicable water quality, that specific pollutant has demonstrated "RP" and effluent limitations would be established for that pollutant. The limitation is the value for that discharge not to cause exceedance of water quality standard during the low flow condition. Therefore, effluent limitations are conservative in protection of receiving waters. EPA performed RP for all pollutants reported in the Application Form 2C. RP Calculation spread sheet for outfalls are available at EPA Final NPDES website https://www.epa.gov/nm/los-alamos-national-laboratory-lanl-industrial-wastewater-permit-final-npdes-permit-no-nm0028355.

Please see Condition of Certification #2, this final permit has corrected all the incongruencies found in the draft permit. If an outfall discharge contains the pollutant of concern but demonstrates no RP, monitoring only will be established in the final permit. If the pollutant of concern was not detected or EPA determines the discharge is unlikely to contain the pollutant of concern, EPA determines that no monitoring is required. If TMDLs for these impaired waterbodies are approved in the future, EPA will establish effluent limitations accordingly. Please see Response to Triad Comment #3.

Comment #2: Joni Arends, with Concerned Citizens for Nuclear Safety. Thanked EPA for the extension of the comment period and will be submitting written comments.

EPA Response: Comment noted for the record.

Comments Received from Concerned Citizens for Nuclear Safety (CCNS), Honor our Pueblo Existence (HOPE), and New Mexico Acequia Association (NMAA)

Comment #1: a) Renewal of the Permit #NM0028355 should not include Outfall 051 since LANL operates the Radioactive Liquid Waste Treatment Facility (RLWTF) at Technical Area 50 within the LANL site. The RLWTF treats low-level and transuranic radioactive and hazardous liquid waste. Such wastes contain hazardous constituents and come within the definition of solid and hazardous waste under RCRA. LANL has consistently scheduled Outfall 051 to remain in the NPDES permit. Despite the modifications to achieve zero liquid discharge, LANL has sought to maintain the RCRA exemption for the RLWTF.

b) Other unused outfall should not be included in a permit renewal. Other outfalls are included in the permit renewal application, even though DOE and Triad do not now discharge from them nor propose to discharge from them. Outfalls 13S, 03A027, 03A113, 03A160, 05A055 are not used for the discharge of pollutants, and they are outside the scope of NPDES permitting.

c) Governing law precludes a permit for non-discharging outfalls. Whether to issue a NPDES permit that includes Outfall 051 and other unused outfalls is governed by CWA, RCRA and regulations issued by EPA under these laws. The CWA forbids the discharge of pollutants into the waters of the United States. RCRA authorizes EPA to issue regulations requiring each person owning or operating an existing facility or planning to construct a new facility to have a permit issued pursuant to this section. RCRA is enforced in New Mexico through the HWA, which NMED is authorized to enforce pursuant to EPA authorization. There is no dispute that the RLWTF managed hazardous waste, and RCRA directs that a facility managing hazardous waste must have a hazardous waste permit. Should RCRA be applicable to the RLWTF, which regulates discharges, be deemed applicable to the non-discharging RLWTF, to render it exempt from RCRA regulation? In 2017 EPA Region 6 resolved the conflict by expanding the application of the CWA beyond its clear limits ignoring RCRA. EPA Region 6 in 2015 and again in 2017 strived to create a conflict with RCRA, without any explanation or justification, to break through the jurisdictional limits of the CWA holding that because a discharge "could occur" the CWA somehow requires a permit for Outfall 051. EPA may not "pick and choose" the federal law that it will apply; rather; it must, in interpreting two statues. Instead, EPA expressly disregarded RCRA, stating flatly that RCRA, and hazardous waste regulation are "outside the scope of our decision and have no bearing on EPA's NPDES permitting decisions" The CWA permit for Outfall 051 and other non-discharging outfalls has no legal basis and should be denied.

(Note: the list of Exhibits A – BBB, submitted with this comment, is available at https://www.epa.gov/nm/los-alamos-national-laboratory-lanl-industrial-wastewater-permit-final-npdes-permit-no-nm0028355).

EPA Response: Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a

remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from at least one of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160. DMRs show regular discharges from Outfall 03A113 since 2019.

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments from Triad National Security, LLC (Triad)

Comment #1: Part I.A Pages 1, 2, 4, 5, 16, 17 and Fact Sheet Page 15. Congener Method 1668 for PCBs is not an approved EPA Method listed in 40 CFR 136. Triad and DOE support the use of the PCB congener method for reporting purposes only but not for compliance purposes. The EPA issued a proposal (FR Vol. 75, No. 222, November 18, 2010) to incorporate the method into 40 CFR Part 136 and accepted comments addressing the validity of the method. The EPA received comments from 35 respondents: only five supported inclusion into Part 136. On May 18, 2012, EPA withdrew the proposed incorporation of the method (FR Vol. 77 No. 97, May 18, 2012). The Los Alamos National Laboratory (LANL) is the only facility in New Mexico where use of the Congener Method 1668 is required to determine compliance with an NPDES permit limit. The proposal to use Method 1668 for monitoring and reporting only is consistent with other New Mexico NPDES permits. Triad and DOE request the removal of the Congener Method 1668 for determining effluent permit compliance from the draft permit. Triad and DOE request that Congener Method 1668 analysis be changed to EPA approved method Aroclor Method 8082 analysis for PCB effluent limit monitoring and reporting at NPDES Outfall 001.

EPA Response: To use Method 1668C Revision for PCBs monitoring and compliance was required by the State 401 Condition of Certification. Since the Method 1668C is not a 40 CFR 136 approved method, the New Mexico Environment Department (NMED) has re-certify the condition to require Method 1668C to be used for compliance purposes.

Comment #2: Part I.A., Page 1, 16, and 22. The following bullets summarize the evolution of the 6T3 requirement in the LANL NPDES permit:

- In 2005, the Water Quality Control Commission (WQCC) adopted the Upper Sandia Canyon Assessment Unit (AU) as a classified water of the State with the designated use of cold-water aquatic life and the segment-specific temperature criteria of 24ºC. The decision to adopt the segment-specific temperature criteria was based on the 2002 U.S. Fish and Wildlife Service (USFWS 2002) study that included continuous temperature recording within the Upper Sandia Canyon AU during the summer of 1997. The study concluded that a cold-water aquatic life designated use, defined by a site-specific maximum temperature of 24ºC was appropriate. NMED SWQB prepared a UAA (NMED 2007) detailing the attainable aquatic life uses for the new Segment and submitted it to EPA for approval. EPA approved Segment 20.6.4.126 NMAC in September of 2007.
- In 2010, as part of a revision of the New Mexico Water Quality Standards, the WQCC discontinued site-specific temperature listings when they did not differ from the cold water temperature criteria contained in 20.6.4.900.H NMAC. The Upper Sandia Canyon AU site-specific maximum temperature standard of 24ºC was eliminated and replaced with the general cold water temperature criteria contained in 20.6.4.900.H NMAC. This criterion specifies a maximum temperature of 24ºC, but includes the criterion that a temperature of 20ºC not be exceeded for six or more consecutive hours in a 24-hour period on more than three consecutive days (6T3).
- The 6T3 criteria was added to the NPDES Permit for Outfall 001 that became effective on October 1, 2014, and became applicable on September 30, 2019 as part of a compliance schedule.

Elevated air temperatures continue to heat the receiving water in Upper Sandia Canyon causing it to be naturally warmer than the 6T3 standard during the months of June through August. Triad and DOE in cooperation with the NMED have collected data to document this issue. Triad and DOE have initiated the regulatory rule making process to demonstrate that the application of the 6T3 cold-water temperature criteria from NMAC 20.6.4.900.H is not attainable in Upper Sandia Canyon. Analytical data have been provided to EPA and NMED in the Semi-Annual Report (Ref. EPC-DO-20-062). Additionally, on February 10, 2020, Triad and DOE submitted a Work Plan for developing a Use Attainability Analysis (UAA) for 6T3 in Sandia Canyon to the NMED (Ref. EPC-DO-20-040). NMED has indicated it will take approximately 30-60 days to review and approve the Work Plan. Upon NMED approval, Triad and DOE will develop the UAA for public comment. While this rule making effort is pending, Triad and DOE request that EPA provide Triad and DOE additional time (i.e. compliance schedule) to meet the 6T3 requirement.

EPA Response: After consulting with NMED, a 3-year Compliance Schedule is approved in the final permit.

Comment #3: Part I.A and Section VI CWA 303(d) Impaired Water. The draft permit inconsistently assigns monitoring requirements and/or permit limits to outfalls that discharge to impaired waters. Specifically, it is inconsistent for those pollutants that were not detected and/or for which the RP

Analysis was negative. The outfalls, discharge locations, and impairments are provided below:

- Outfall 001: Sandia Canyon [NMAC 20.4.6.126] impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha.
- Outfall 03A027: Sandia Canyon [NMAC 20.4.6.126] impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha.
- Outfall 03A199: Sandia Canyon [NMAC 20.4.6.126] impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha.
- Outfall 03A022: Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total Mercury.
- Outfall 051: Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total Mercury.
- Outfall 03A181: Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total Mercury.
- Outfall 13S: Canada del Buey [NMAC 20.6.4.128] impaired for PCBs and Adjusted Gross Alpha.
- Outfall 05A055: Canon de Valle [NAMC 20.6.4.128] impaired for Adjusted Gross Alpha.
- Outfall 03A048: Los Alamos Canyon [NMAC 20.6.4.128] impaired for PCBs, Total Recoverable Cyanide, Total Recoverable Selenium, Adjusted Gross Alpha, and Total Mercury.
- Outfall 03A113: Sandia Canyon [NMAC 20.6.4.128] impaired for PCBs, Total Recoverable Aluminum, Adjusted Gross Alpha, and Total Mercury.
- Outfall 160: Ten Site Canyon [NMAC 20.6.4.128] impaired for PCBs and Adjusted Gross Alpha.

Please amend the inconsistencies in Part I.A as follows:

- Delete permit limits at those outfalls where the pollutant was not detected and the RP Analysis was negative.
- Reduce to permit monitoring "report only" at those outfalls where the pollutant was detected and the RP Analysis was negative. Recommend a frequency of 1/year.

Please revise Section VI to reflect all applicable impaired waters and the methodology/approached used to assign permit requirements based upon discharges to them.

EPA Response: In the draft permit, EPA conducted RP for each outfall and established effluent limitations from forms 2C and Fact Sheet information provided by the permittee in 2019. Since the comment period lasted a year, new equipment's were installed and new data became available for multiple outfalls during the year 2020, the permittee submitted updated information that EPA used to re-run RP. NMED has requested that EPA requires monitoring of pollutants which caused impairment at outfalls where those were detected in the effluent (Condition #2). *Monitoring requirements shall exist in the final permit at outfalls where there is an impairment in the receiving waterbody, regardless of whether RP exists.* EPA proposes monitoring only requirement of 1/Year (except for temperature, 1/quarter) for those pollutants because effluent data have demonstrated no RP. If an outfall discharge contains the pollutant of concern but demonstrates no RP, monitoring only will be established in the final permit. If the pollutant of concern was not detected or EPA determines the discharge is unlikely to contain the pollutant of concern, EPA determines that no monitoring is required. If TMDLs for these impaired waterbodies are approved in the future, EPA will establish effluent limitations accordingly.

Comment #4: Part III.D.4. Triad requests a waiver from the requirement to use NetDMR to submit Discharge Monitoring Report (DMR) results due to the complications associated with reporting for multiple outfalls; the inability of NetDMR to record WET test results and retests; and the inability to of NetDMR to report 6T3 exceedances for temperature at Outfall 001. If the EPA grants the waiver, Triad proposes to continue to submit paper DMRs on EPA No. 3320-1.

If the EPA decides not to grant the waiver, then Triad requests the requirement to implement NetDMR be amended to allow for implementation under a compliance schedule. This will allow Triad to work with NetDMR to create the custom parameters, storet codes, and limits that will be required to implement the NetDMR system at LANL. A compliance schedule would also provide Triad time to develop modifications to the Electronic Information Management System at LANL so that it can auto populate the DMR reports without errors or inconsistencies.

EPA Response: Discharge Monitoring Report (DMR) results shall be electronically reported to EPA per 40 CFR 127.16. To obtain a waiver, the permittee may contact EPA Region 6 Enforcement Division for waiver request in accordance with the provision set in the Proposed Permit Part III.D.4. If paper reporting is granted temporarily, the permittee shall submit the original DMR signed and certified as required and all other reports required by Part III.D. to the EPA and copies to NMED as required.

Comment #5: Fact Sheet pg. 8, Part B, 5th paragraph. There was combination of ELG and BPJ used on this permit and the paragraph as written conflicts with the information stated for each outfall.
Please revise the paragraph as follows:
"Following are the summary of the Technology Based Effluent limitations included in the administratively continued permit and EPA proposes to retain them in the permit:"

EPA Response: Comment noted for the record.

Comment #6: Fact Sheet pg. 12, Item C4, 1st paragraph. Please revise the last sentence as follows: "The initial screening results show that the following discharges have RP to exceed the WQS for the designated uses in 20.6.4.126 and 20.6.4.128:"

EPA Response: Comment noted for the record.

Comment #7: Part II.B. Please revise the list of pollutants for which 24-hour oral reporting is required to reflect only those that have a permit limit. Those that have monitoring "report only" requirements should be deleted and include the following:

- Adjusted Gross Alpha
- Chromium VI (see comments on Outfall 03A160)

EPA Response: Comment noted. EPA has included the list of pollutants to reflect only those that have a permit limit.

Comment #8: Part II, Section F. Please add the following test methods for radiological analysis. These methods are not currently listed in 40 CFR 136.3:

- EPA 900/SW846 9310 – Gross Alpha and Gross Beta
- EPA 900_CALC – Adjusted Gross Alpha
- EPA 903.1 – Radium 226
- EPA 904 – Radium 228

- EPA 905 – Strontium 90
- EPA 906 - Tritium

HASL 300 – Isotopic Radiological Data (e.g., Am-241, Pu238, Pu239, Pu240,U234, U238)

EPA Response: The analytical methods for radiological analyses are added to the final permit.

Comment #9: Part I.A and Part II, Section H. Please revise the WET test sampling requirements for Outfall 051 and 05A055 for the following reasons:

- Outfall 051 and 05A055 are discharged from a mixed tank in batches. The samples cannot be collected as a 3-hour composite sample. They are collected as a grab sample from the recirculation line as the tank is discharged to the outfall. The tank is mixed and the grab sample is representative of the contents.
- A sample to provide fresh effluent for the 24-hour renewal step of the WET test cannot be collected on a separate day because effluent is discharged to the outfall as a batch operation instead of a continuous flow.

[See Comment Nos. 58, 66, 91)

EPA Response: EPA changed Part I, Outfall 051 and 05A055 to grabs. The permittee may collect the required 2 samples during the duration of the batch discharge.

Comment #10: Part I.A, Page 1, Outfall 001. Please revise the outfall description to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018), Supplemental Information Package 1 (Ref. EPC-DO-19-299), and Notices of Change (Ref. Enclosure 6):

"During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted) the permittee is authorized to discharge cooling tower blowdown, boiler blowdown, demineralizer backwash, RO reject and once through cooling water from the Power Plant; treated sanitary effluent from the Sanitary Wastewater System (SWWS) Facility; recycled sanitary effluent from the Sanitary Effluent Reclamation Facility (SERF), and treated cooling tower blowdown from the Strategic Computing Complex (SCC) to Sandia Canyon in Segment Number 20.6.4.126 of the Rio Grande Basin. The discharge from this outfall creates a perennial portion of Sandia Canyon that is effluent dominated."

EPA Response: Comment noted for the record, and change made accordingly to correctly reflect Outfall 001 description.

Comment #11: Part I.A, Page 1, Outfall 001. Please delete the requirement to monitor for Total Recoverable Aluminum at Outfall 001. Total Recoverable Aluminum was not detected in the effluent (Ref. ESHQSS-19-018) and the RP Analysis was negative.

[See Comment No. 3]

EPA Response: See Response to Comment No. 3. Total Recoverable Aluminum monitoring only is required at this discharge since it was detected at the effluent with a concentration of 19.3 ug/L. RP Analysis was negative, no limits are required at this time. If an outfall discharge contains a pollutant of concern for an impairment listing in the receiving waterbody but demonstrates no RP, monitoring only is established in the final permit.

Comment #12: Part I.A, Page 1, Outfall 001. A PCB sample was collected from Outfall 001 in May 2019 and analyzed using the Congener Method as required by the permit. The result from that sample was 0 ug/L for Total PCBs as reported in the September 2019 Discharge Monitoring Report (Ref. EPC-DO-19-394). Please change the permit requirement for PCBs at Outfall 001 to monitoring and "report only". If the PCB limit is continued in the permit, then revise the analytical method to include the Aroclor Method 8082 for monitoring and reporting consistent with 40 CFR 136.

[See Comment No. 1]

EPA Response: PCB has been added as required by the Condition of Certification #1 above.

Comment #13: Part I.A, Page 2 and FS page 18, Outfall 001. Please correct the fact sheet to match the draft permit Part I.A. The Fact Sheet states that 7-day chronic test required for *Pimephales promelas* will be performed at a frequency of 1/year. The draft permit Part I.A says the frequency is 1/5-years

EPA Response: The frequency in the fact sheet was correct. The final permit will reflect the frequency of 1/year consistent with NMIP Table 11: WET testing requirements.

Comment #14: FS, page 4, Outfall 001. Please revise the outfall description to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018), Supplemental Information Package 1 (Ref. EPC-DO-19-299), and Notices of Change (Ref. Enclosure 6).

[See Comment No. 11]

EPA Response: Comment noted for the record. Also see response to comment #3.

Comment #15: FS, page 4, 3rd sentence. Please revise to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018), Supplemental Information Package 1 (Ref. EPC-DO-19-299), and Notices of Change (Ref. Enclosure 6) as follows:
"Disinfected water from the SWWS facility is pumped to the Reuse Tank and is dechlorinated ……"

EPA Response: Comment noted for the record. Also see response to comment #3.

Comment #16: FS, page 5, Outfall 001. Please revise the long-term average flow rate/volume used in the text and RP analysis to be consistent with the Notice of Change submitted to the EPA on November 27, 2019 (Ref. Enclosure 6). The revised long term average flow rate/volume is:
Long Term Average: 310,595 GPD (365 days/year) [Ref. Enclosure 6]

EPA Response: Comment noted for the record. Also see response to comment #3.

Comment #17: FS, page 5, Outfall 001. Please revise the bullets to be consistent with the Notice of Change submitted to the EPA on November 27, 2019 (Ref. Enclosure 6) as follows:

- The SCC is currently adding 5 more cooling towers to its cooling system. These towers will utilize the existing water treatment system and makeup water supply and will increase the long-term average discharge volume to Outfall 001.

A Power Plant renovation will resume co-generation power/steam operations and this will increase the long-term average volume of water discharge to Outfall 001. The renovation will include the discharge of reverse osmosis concentrate, demineralizer regeneration, steam condensate blowdown, boiler blowdown, and cooling tower blowdown to Outfall 001 either directly or indirectly after it has been treated at the SWWS facility.

EPA Response: Comment noted for the record. Also see response to comment #3.

Comment #18: FS, page 11, Outfall 001. Revise volume/flow rate in the text and RP analysis to be consistent with Notice of Change submitted to the EPA on November 27, 2019 (Ref. Enclosure 6). Long Term Average: 310,595 GPD (365 days/year) [Ref. Enclosure 6]

EPA Response: Comment noted for the record. Also see response to comment #3.

Comment #19: Section VI, CWA 303(d) Impaired Water. Outfall 001 discharges to Sandia Canyon [NMAC 20.4.6.126], which is impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 001 due to impaired waters.

[See Comment No. 3]

EPA Response: See Response to Comment No. 3.

Comment #20: RP Analysis, page 3, Outfall 001. The Permit Re-Application Form 2C (Ref. ESHQSS-19-018) provided a Total Chromium value of <3 ug/L. This value was below the MDL of 3 ug/L and the EPA MQL of 10 ug/L. Please correct the RP Analysis to indicate that Dissolved Chromium (including Cr III and Cr VI) were not detected in the effluent.

EPA Response: Comment noted for the record. See Response to Comment No. 3. RP analysis did not show RP for chromium in any form in Outfall 001.

Comment #21: RP Analysis, page 2/3. The RP Analysis did not provide a calculation for dissolved copper and it is unclear what the source of the number used for dissolved copper is. The long-term average for dissolved copper from the DMR summary provided with the 2019 Permit Re-Application is 3.7 ug/L (Ref. ESHQSS-19-018). The calculated value using the spreadsheet and the Total Copper concentration of 5.45 ug/L that was provided on the Permit Re-Application Form 2C (Ref. ESHQSS-19-018) is 2.429667405 ug/L. Both of these values are different that the concentration used in the RP Analysis (2.945 ug/L). Please clarify and/or correct.

EPA Response: EPA re-ran RP using the Total Copper concentration of 5.45 ug/l that was provided on the Form 2C and a limit has been established in the final permit.

Comment #22: Part I.A, page 4, Outfall 13S. Please revise the description to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299) as follows:
"During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated sanitary wastewater

effluent from the Sanitary Wastewater System (SWWS) Facility to Canada del Buey in Segment Number 20.6.4.128 of the Rio Grande Basin. The discharge may also be routed to Outfall 001 in Sandia Canyon in Segment Number 20.6.4.126 of the Rio Grande Basin to support reuse/recycle.

Such discharges shall be limited and monitored by the permittee as specified below: (Monitoring and reporting are not required at 13S if the effluent is reused/recycle or discharged to Outfall 001)."

EPA Response: Comment noted for the record, and change made accordingly to correctly reflect Outfall 13S description.

Comment #23: Part I.A, page 5, footnote 3, Outfall 13S. Please clarify footnote 3 to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299) as follows:
"If the wastewater is discharged directly to Outfall 001, as effluent from the SERF facility to Outfall 001, or as reused/recycled blowdown from the SCC Cooling towers to Outfall 001 or 03A027, it shall comply with effluent limitations and monitoring requirements for PCBs as established for Outfall 13S."

EPA Response: Comment noted for the record. EPA accepts and adopts the footnote for clarifying purposes.

Comment #24: Part I.A, page 5, footnote 4, Outfall 13S. Please clarify footnote 4 as follows:

"The limit is based on the human health-organism only" based water quality standard.

EPA Response: Comment noted for the record. Footnote changed to: Limit is required by NMED CWA 401 Condition of Certification.

Comment #25: FS, Section V.C, Outfalls 13S and 001. Please clarify that this facility's discharges qualify as Minor (sanitary waste discharge with flow over 0.1 MGD but less than 1.0 MGD) and replace Part IV Instructions to Permittees Major – Sewage Sludge Requirements with Part IV Instructions to Permittees Minor – Sewage Sludge Requirements.

EPA Response: The combined sanitary wastewater from 13S and 001 is 0.5 MGD, falling into the minor discharge category. Part IV Instructions to Permittees Minor – Sewage Sludge Requirements is incorporated into the final permit.

Comment #26: Part IV currently provides instructions for a Major – Sewage Sludge Requirements. The SWWS facility associated with Outfall 13S and 001 is a Minor. Please correct Part IV to provide the Minor – Sewage Sludge Requirements.

EPA Response: Please see response to comment #25 above.

Comment #27: Section VI, CWA 303(d) Impaired Water. Outfall 13S discharges to Canada del Buey [NMAC 20.4.6.128], which is impaired for PCBs and Adjusted Gross Alpha. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 13S due to impaired waters.

[See Comment No. 3]

EPA Response: Please see Response to Condition of Certification No. 1 & 2.

Comment #28: Part I.A, page 16, Outfall 03A027. Please revise the description to be consistent with the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299) as follows:
"During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge cooling tower blowdown to Sandia Canyon, in Segment number 20.6.4.126 of the Rio Grande Basin."

EPA Response: Comment noted for the record, and change made accordingly to correctly reflect Outfall 03A027 description.

Comment #29: Part I.A, page 17, footnote 2, Outfall 03A027. Effluent from Outfall 13S is not rerouted directly to Outfall 03A027. Suggest revising the footnote to say the following: "Effluent limitations and monitoring requirements only apply when SWWS effluent treated at the SERF; used as makeup water in the SCC Cooling Towers; and discharged as blowdown to Outfall 03A027."

EPA Response: Change made accordingly.

Comment #30: Part I.A, page 17, footnote 5, Outfall 03A027. Outfall 03A027 does not have a continuous 6T3 recorder for temperature.

EPA Response: Change made accordingly. An instantaneous grab sample is required to record temperature.

Comment #31: FS, page 5, Outfall 03A027. Please revise the following sentence: "If discharges occur, the potential average flow rate is 0.051 MGD and the daily maximum flow is 0.105 MGD. Outfall 03A027 did not discharge from September 2016 through May 2019, so older monitoring data was submitted."

The sentence should say, "Outfall 03A027 effluent is currently routed to Outfall 001 and has not discharged since September 2016. If discharges occur, the potential average flow rate is 0.051 MGD and the daily maximum flow is 0.105 MGD. An operational sample was collected from the cooling tower blowdown to provide data for the permit application and this data was used in the RP analysis."

EPA Response: Comment noted for the record. See also Response to Comment #3.

Comment #32: FS, page 5, 3rd paragraph, 3rd sentence, Outfall 03A027. Please revise the description for Outfall 03A027 as follows:
"Blowdown from the SCC Cooling Towers may be routed to Outfall 03A027, Outfall 001, SERF or the SWWS as needed to allow for water recycling, construction, and or maintenance activities."

EPA Response: Comment noted for the record.

Comment #33: Section VI, CWA 303(d), Impaired Water. Outfall 03A027 discharges to Sandia Canyon [NMAC 20.4.6.126], which is impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha. Please revise the permit requirements in Section I.A and

Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A027 due to impaired waters.

[See Comment No. 3]

EPA Response: See Response to Condition of Certification No. 1 & 2 and Response to Comment No. 3.

Comment #34: RP Analysis, page 1, Outfall 03A027. The average temperature used in the RP Analysis (23 ℃) does not match the Permit Re-Application Form 2C. Please revise to 22.8℃.

EPA Response: Comment noted for the record. EPA re-ran RP with revised temperature of 22.8℃. No change on the final permit is necessary.

Comment #35: RP Analysis, page 2, Outfall 03A027. The RP Analysis did not provide a calculation for dissolved copper. The Permit Re-Application Form 2C indicated a detected concentration of total copper in the effluent of 16.3 ug/L. Based on the RP calculation the dissolved concentration should be 7.2667 ug/L. Please correct.

EPA Response: Dissolved copper value was calculated based on dissolved copper data provided in Outfall 03A027 Fact Sheet. RP was re-done using data from Form 2C of 16.3 ug/L Total Copper and RP exists for Total Copper and limit is maintained in the final permit.

Comment #36: RP Analysis, page 3, Outfall 03A027. The RP Analysis currently uses a dissolved copper concentration of 13.57 ug/L. The dissolved copper concentration should be 7.2667 ug/L based upon the total copper concentration of 16.3 ug/L provided on the Permit Application Form 2C. Please correct or clarify why different data was used

EPA Response: Please see Response to Comment #35 above.

Comment #37: RP Analysis, page 4, Outfall 03A027. The Permit Re-Application Form 2C for Outfall 03A027 (ESHQSS-19-018) indicates that bromoform, chlorodibromomethane, chloroform, and dichlorobromomethane were not detected above the MDL and the EPA MQL. Please delete the effluent data that was used in the RP Analysis for these potential pollutants.

EPA Response: Comment noted for the record. RP analysis was re-done without these pollutants. No RP was detected.

Comment #38: Part I.A, page 22, Outfall 03A199. Please delete "and other wastewater" from the description to be consistent with the 2019 Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299). This outfall discharges only treated cooling tower blowdown to the outfall.

EPA Response: Change made accordingly to correctly reflect Outfall 03A199 description.

Comment #39: Part I.A, page 22, Outfall 03A199. Please clarify why the draft permit includes a requirement to monitor Temperature (1/Quarter) at Outfall 03A199. This outfall converges with Sandia Canyon downstream of Outfall 001 and 03A027. [Related to Comment No.2]

EPA Response: Outfall 03A199: Sandia Canyon [NMAC 20.4.6.126] is impaired for Temperature. See comment #3. See Condition of Certification #2, which says: *Monitoring requirements shall exist in the final permit at outfalls where there is an impairment in the receiving waterbody, regardless of whether RP exists.*

Comment #40: Part I.A, page 22, Outfall 03A199. Please delete the requirement to monitor for Total Recoverable Aluminum at Outfall 03A199. Total Recoverable Aluminum was not detected in the effluent (Ref. ESHQSS-19-018) and the RP Analysis was negative.
[See Comment No. 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3. Monitoring requirements for total recoverable aluminum is due to impair of receiving water and was detected (19.3 ug/L in effluent).

Comment #41: Part I.A, page 22, Outfall 03A199. Please delete the permit limit for copper. The RP Analysis does not indicate RP for copper at Outfall 03A199.
[See Comment No. 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3. Limit for copper has been deleted in the final permit as no RP existed, but a monitoring requirement is established due to impairment of receiving water.

Comment #42: Part I.A, page 22, Outfall 03A199. Please delete the permit limit for zinc. The RP Analysis does not indicate RP for zinc at Outfall 03A199.
[See Comment No. 3]

EPA Response: See Response to Comment No. 3. Limit for zinc has been deleted in the final permit as no RP existed.

Comment #43: Part I.A, page 23, footnote 4, Outfall 03A199. Outfall 03A199 does not have a continuous 6T3 recorder for temperature.

EPA Response: Comment noted for the record. Temperature will be collected as instantaneous grab sample.

Comment #44: *Commenter skipped this number. No Response needed. *

Comment #45: FS, page 11, Outfall 03A199. Please revise the following sentence so that it references 20.6.4.126 instead of 20.6.4.128: "However, because the discharge at Outfall 03A199 is to a storm water drain prior to reaching Sandia Canyon, an additional RP was conducted against WQS for 20.6.4.126 waterbody."

EPA Response: Comment noted for the record. No change required in the final permit.

Comment #46: FS, page 14, 1st paragraph, Outfall 03A199. Please revise the last 2 sentences of this paragraph as follows: "EPA proposes to establish copper and zinc limits at Outfall 03A199. In addition, the EPA proposes to establish monitoring requirements and limits for copper, zinc, and PCBs at Outfall

03A027 if effluent is discharged to the outfall. Currently, Outfall 03A027 does not discharge because its effluent is routed to Outfall 001."

EPA Response: Comment noted for the record.

Comment #47: FS, page 14, 4th paragraph, Outfall 03A199. Please delete the 4th paragraph. The 2019 Permit Re-Application Form 2C [Ref. ESHQSS-19-018] for Outfall 03A199 indicates that selenium and cyanide were not detected above the MDL and the EPA MQL. The RP Analysis was also negative for selenium and cyanide.

EPA Response: Comment noted for the record. See Response to Comment No. 3.

Comment #48: Section VI, CWA 303(d) Impaired Water. Outfall 03A199 discharges to Sandia Canyon [NMAC 20.4.6.126], which is impaired for Temperature, Total Recoverable Aluminum, Dissolved Copper, PCB, and Adjusted Gross Alpha. Please revise the permit requirements in Section I.A and Section VI to reflect methodology/approach used to assign permit requirements to Outfall 03A199 due to impaired waters.
[See Comment No. 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3.

Comment #49: RP Analysis, Page 1, Outfall 03A199. Please revise the stream segment to 20.6.4.126. [Ref. ESHQSS-19-018]

EPA Response: EPA re-ran RP with the correct stream segment 20.6.4.126. No changes resulted from the new RP analyses.

Comment #50: RP Analysis, Page 1, Outfall 03A199. Please correct the RP Analysis. The notes next to TSS, Hardness and long-term flow indicate the data is for Outfall 001. The data is actually for Outfall 03A199.

EPA Response: EPA re-ran the RP with the correct data for Outfall 03A199. No changes resulted from the new RP analyses.

Comment #51: RP Analysis, Page 2, Outfall 03A199. The RP Analysis did not calculate a concentration for dissolved copper. The 2019 Permit Re-Application Form 2C (Ref. ESHQSS-19-018] indicated a detected concentration of total copper in the effluent of 3.15 ug/L. Based on the RP calculation the dissolved concentration should be 1.45999395 ug/L. Please correct.

EPA Response: Please see Condition of Certification No. 2 and Response to Comment No. 3. EPA re-ran RP with revised concentration for dissolved copper. No RP existed for the pollutant, nevertheless monitoring will be required for total copper as per Condition of Certification No. 2.

Comment #52: The RP Analysis currently uses a dissolved copper concentration of 1.845 ug/L. The dissolved copper concentration should be 1.459 ug/L based upon the total copper concentration of 3.15 ug/L provided on the Permit Application Form 2C. Please correct.

EPA Response: See Response to Comment No. 51 above.

Comment #53: RP Analysis, Page 3, Outfall 03A199. The RP analysis includes an effluent concentration for phenol of 3.36 ug/L. The 2019 Permit Application Form 2C indicates that phenol was less than the MDL and the EPA MQL. Please correct the RP Analysis.

EPA Response: See Response to Comment No. 3. EPA re-ran RP without phenol concentration as it was less than the MDL and EPA MQL.

Comment #54: RP Analysis, General. The table provided on Page 12 of the fact sheet includes data for RP analysis at the outfall point of discharge and when it converges with the existing stream generated by Outfall 001/03A027. The RP calculation at the convergence was not provided for review.

EPA Response: For development of the final permit EPA used updated data to re-run RP for the Outfall and not the convergence. RP limits on the final permit are based on the re-run RP and Condition of Certification No. 2. Monitoring for Copper is included since the discharge reaches the waterbody that is listed by the NMED with an impairment for Copper.

Comment #55: Please revise the Outfall 051 description to be consistent with the 2019 Permit Re-Application (Ref. ESHQSS-19-018) and Supplemental Package 2 (Ref. EPC-DO-19-301) as follows: "During the period beginning the effective date of the permit and last through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharged treated effluent from the Radioactive Liquid Waste Treatment Facility (RLWTF) to Mortandad Canyon in Segment number 20.6.4.128 of the Rio Grande Basin."

EPA Response: Change made accordingly to correctly reflect Outfall 051 description.

Comment #56: Part I.A, Page 6. The Copper limit (5 ug/L) provided for Outfall 051 is the calculated limit using a hardness of 50 mg/L for Chronic Aquatic Life. Outfall 051 discharges to Mortandad Canyon (NMAC 20.6.4.128). NMAC 20.6.4.128 has a designated use of limited aquatic life, therefore, the chronic aquatic life criteria does not apply (NMAC 20.6.4.900.H.7). Please revise the permit limit to the calculated Acute Aquatic Life limit of 7 ug/L (applicable under NMAC 20.6.4.900.7), which is the calculated limit at 50 mg/L hardness.

EPA Response: EPA re-ran RP for Outfall 051 using acute aquatic life criteria. RP for Copper still exists based on acute aquatic life criteria and a limit is included in final permit.

Comment #57: Part I.A, Page 7, Outfall 051. Please revise the WET test sampling requirements for Outfall 051 for the following reasons:

- Outfall 051 is discharged from a mixed tank in batches. The samples cannot be collected as a 3-hour composite sample. It can be collected as a grab sample from the recirculation line as the tank is discharged to the outfall. The tank is mixed and the grab sample is representative of the contents.
- A sample to provide fresh effluent for the 24-hour renewal step of the WET test cannot be collected on a separate day because effluent is discharged to the outfall as a batch operation instead of a continuous flow.

[See Comment No. 9]

EPA Response: Comment noted for the record. See Response to Comment No. 9.

Comment #58: FS, Page 7, Outfall 051. Please delete the following sentence:
"The facility has a mechanical evaporation system and Outfall 051 has not discharged since 2014 (Note: Discharges to the outfall were performed on June 18, 2019, March 10, 2020, and August 18, 2020)."
The sentence is no longer applicable.

EPA Response: Comment noted for the record. See Response to Comment No. 3.

Comment #59: FS, Page 9, Outfall 051. The technology based effluent limits discussed on page 5 of the fact sheet include Total Chromium and Total lead, however, the limits were not added to the Part I.A requirements. The RP analysis for chromium and lead indicate that there is no reasonable potential for these metals in the effluent. Please provide a footnote to this section indicating that the negative RP is the justification for NOT assigning an effluent limit to the permit.

EPA Response: Comment Noted for the record. New RP analysis also was negative for chromium and lead.

Comment #60: FS, Page 9. The draft permit Part I.A, fact sheet, and RP analysis utilize three different hardness values for Outfall 051.

- Part I.A – 50 mg/L hardness limit
- Fact Sheet Table on Page 12 - is 17.3 mg/L
- RP Analysis - 77.4 mg/L (from June 19, 2019 Effluent Discharge).

Please clarify how hardness was used to determine the permit monitoring and/or limits provided in Part I.

EPA Response: EPA re-ran RP using updated data from Enclosures 1 and 2 provided with the permittees comments (hardness 83.8 mg/L). Updated limits are established in the final NPDES permit.

Comment #61: FS, Page 12, Outfall 051. LANL has performed additional analysis that includes data for Thallium at an MDL below the EPA MQL. An operational sample collected from RLWTF effluent on December 17, 2019 indicated that Thallium was not detected at a lower MDL of 0.051 ug/L. This MDL is lower than the EPA MQL of 0.5 ug/L. Please do not add a monitoring requirement for Thallium for Outfall 051. [See Enclosure 2]

EPA Response: Please see Condition of Certification #2. Effluent limitation for thallium is condition for certification and must be included for this permit. (40 CFR §124.55(a)(2)).

Comment #62: FS, Page 12, Outfall 051. LANL performed additional analysis that includes data for Mercury at an MDL below the EPA MQL. The operational sample collected from the effluent on December 17, 2019 shows a value of 0.0021 ug/L Mercury with a revised MDL of 0.0003 ug/L. Please clarify. [See Enclosure 2]

EPA Response: EPA re-ran RP using updated data from permittee. No limits are established for Mercury. See Response to Comment No. 3.

Comment #63: FS, Page 14, last paragraph. Please delete the first sentence "The effluent is evaporated through a mechanical evaporator and has not discharge since November 2010." Outfall 051 received a discharges on June 18, 2019; March 10, 2020; and August 18, 2020.

EPA Response: Comment noted for the record. See Response to Comment No. 3.

Comment #64: FS, Page 15, Outfall 051. It appears that the limits provided in Part I.A were not adjusted to reflect the revised analytical results from June 2019. The permit requires a minimum hardness of 50 mg/L. The calculated Acute Aquatic Life limit at that hardness is 7.0 mg/L (NMAC 20.6.4.900.J.1. The RP Analysis used the hardness (77.4 mg/L) from Supplemental Data Package 2 (Ref. EPC-DO-19-301). The calculated Acute Aquatic Life limit at the RP Analysis hardness is 10.6 mg/L. Please clarify what data was used to determine the copper limit provided Part I.A.

EPA Response: Hardness of 83.8 mg/L was used for RP analysis. Please see Response No. 60 above.

Comment #65: FS, Page 18, Outfall 051. Please revise the following requirement:

"Since the flow from this outfall is intermittent, a 3-hour composite rather than a 24-hour composite sample is established because the discharge is intermittent. The term "3-hour composite sample" means a sample consisting of a minimum of one (1) aliquot of effluent collected at a one-hour interval over a period of up to 3-hour discharge."

The revision is appropriate due to the following reasons:

- Outfall 051 is discharged from a mixed tank in batches. The samples cannot be collected as a 3-hour composite sample. It can be collected as a grab sample from the recirculation line as the tank is discharged to the outfall. The tank is mixed and the grab sample is representative of the contents. A sample to provide fresh effluent for the 24-hour renewal step of the WET test cannot be collected on a separate day because effluent is discharged to the outfall as a batch operation instead of a continuous flow.

[See Comment No. 9]

EPA Response: Comment noted for the record. Please see Response to Comment No. 9.

Comment #66: RP Analysis, Page 3, Outfall 051. Please revise the RP analysis to include the dissolved Manganese result provided in Supplemental Package 2 submitted on August 19, 2019 (Ref. EPA-DO-19-301).

EPA Response: Comment noted for the record. EPA re-ran RP with a dissolved manganese result of 21.4 ug/L provided by the permittee. No RP existed for the pollutant. No manganese limit or monitoring is required in the final permit for Outfall 051.

Comment #67: RP Analysis, Page 4, Outfall 051. Please update the RP Analysis with the Low MDL Mercury and Thallium results provided above and in the attached analytical reports.
[See Comment No. 60 and 61]

EPA Response: Comment noted for the record. EPA re-ran RP and included limit for thallium, which was also required as a Condition of Certification No. 2.

Comment #68: RP Analysis, Page 4, Outfall 051. The effluent concentration data provided for Total and Dissolved Molybdenum was not updated to the data provided in Supplemental Package 2 submitted on August 19, 2019 (Ref. EPA-DO-19-301). Supplemental package 2 provides the analytical data collected from the discharge to Outfall 051 that was performed on June 18, 2019. Please revise.

EPA Response: Comment noted for the record. EPA re-ran RP using updated Total Molybdenum of 0.2 ug/L concentration. No changes in the final permit are required.

Comment #69: Fact Sheet, Section VI, CWA 303(d) Impaired Water. Outfall 051 discharges to Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total Mercury. Please revise the permit requirements in Section I.A and Fact Sheet Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 051 due to impaired waters.
[See Comment No. 3]

EPA Response: Comment noted for the record. See Response to Comment No. 3.

Comment #70: Part I.A, Page 12, Outfall 03A181. Please revise the description to be consistent with the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299) as follows:
"During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge treated cooling tower blowdown to Mortandad Canyon, in Segment number 20.6.4.128."

EPA Response: Change made accordingly to correctly reflect Outfall 03A181 description.

Comment #71: FS, Page 6, 3rd Paragraph, Outfall 03A181. Please delete the last two sentences. The project to route the cooling tower blowdown to the Reuse tank has been cancelled.

EPA Response: Comment noted for the record. See also Response to Comment No. 3.

Comment #72: Section VI, CWA 303(d) Impaired Water. Outfall 03A181 discharges to Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total Mercury. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A181 due to impaired waters.
[See Comment No. 3]

EPA Response: See Response to Comment No. 3.

Comment #73: Part I.A, Page 12, Outfall 03A181. LANL has performed additional analysis that includes data for a dissolved Chromium VI. The result indicated that Chromium VI was not detected below the MDL of 3 ug/L. Please delete the requirement to monitor for Chromium VI at Outfall 03A181. [See Enclosure 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3. EPA re-ran RP with updated data from Enclosure #3 and Outfall 03A181 RP for Chromium VI was negative and no limit or monitoring is required in the final permit.

Comment #74: Part I.A, Page 18, Outfall 03A048. Please delete "and other wastewater" from the description to be consistent with the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299). This outfall only discharges treated cooling tower blowdown to the outfall.

EPA Response: Change made accordingly to correctly reflect Outfall 03A048 description.

Comment #75: Part I.A, Page 14 and FS, Page 14 & 20, Outfall 03A048. There is an inconsistency regarding when the requirement to monitor for "impaired water" contaminates is applied to each outfall. The impairments were not added to Part I.A for Outfall 03A048 but were added to Outfall 03A113 regardless of whether the RP Analysis was negative. Please clarify.
[See Comment No. 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3.

Comment #76: Section IV, CWA 303(d) Impaired Water. Outfall 03A048 discharges to Los Alamos Canyon [NMAC 20.6.4.128] impaired for PCBs, Total Recoverable Cyanide, Total Recoverable Selenium, Adjusted Gross Alpha, and Total Mercury. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A048 due to impaired waters.
[See Comment No. 3]

EPA Response: See Response to Comment No. 3.

Comment #77: Part I.A, Page 14, Outfall 03A113. Please delete "and other wastewater" from the description to be consistent with the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299). This outfall only discharges treated cooling tower blowdown that can be isolated for sampling at the outfall prior to comingling with storm water.

EPA Response: Change made accordingly to correctly reflect Outfall 03A113 description.

Comment #78: Part I.A, Page 14, Outfall 03A113. The description does not include the discharge of storm water. This is inconsistent with Page 5 of the Fact sheet. Please revise the description to include stormwater.

EPA Response: Comment noted for the record. EPA revised the description of Outfall 03A113 and added "and stormwater" to the final permit.

Comment #79: FS, Page 14 and 20, Outfall 03A113. There is a conflict between Part I.A, Page 14, and Page 20 regarding the inclusion of Total Recoverable Aluminum, Total Mercury, and Adjusted Gross Alpha. The fact sheet indicates that Total Recoverable Aluminum and Adjusted Gross Alpha are proposed to be removed from the permit for this outfall. This appears to be inconsistent with Section VI on Page 20, which indicates that Total Recoverable Aluminum, mercury, and Adjusted Gross Alpha are included due to impaired waters. If there is no reasonable potential and the waste stream is not variable (i.e., single routine source) does the requirement to sample and report due to impaired waters need to be included? Please clarify or remove the requirement to sample and report.
[See Comment No. 3]

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3. If an outfall discharge contains impairments pollutants of concern but demonstrates no RP, monitoring only will be established in the final permit.

Comment #80: Section VI, CWA 303(d) Impaired Water. Outfall 03A113 discharges to Sandia Canyon [NMAC 20.6.4.128] impaired for PCBs, Total Recoverable Aluminum, Adjusted Gross Alpha, and Total Mercury. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A113 due to impaired waters. [See Comment No. 3]

EPA Response: See Response to Comment No. 3.

Comment #81: RP Analysis. The RP Analysis indicates that there is RP for Copper at this outfall. Is there a reason it was not included in the Part I.A for Outfall 03A113?

[See Comment No. 3]
EPA Response: The file named 2019Outfall03A113NewData.xlxs shows no RP for Copper but does show RP for Chromium VI which is right above Copper. The final permit retains the proposed limit for Chromium VI, but based on the RP analysis no limit for Copper is required.

Comment #82: Part I.A, Page 10, Outfall 03A022. Please revise the outfall description to be more consistent the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299) as follows:
"During the period beginning the effective date of the permit and lasting through the expiration date of the permit (unless otherwise noted), the permittee is authorized to discharge storm water from roof drains, once through cooling water, and once-through cooling water from emergency use only to Mortandad Canyon, in segment number 20.6.4.128 of the Rio Grande Basin. (Cooling tower blowdown is not authorized for discharge at this outfall.)"

EPA Response: Change made accordingly to correctly reflect Outfall 03A022 description.

Comment #83: FS, Page 9, Outfall 03A022. Please delete the ELGs for a Type Outfall 04A from the draft permit. The Outfall 04A022 has been renamed 03A022 and there are no longer any 04A outfalls at LANL.

EPA Response: Comment noted for the record.

Comment #84: FS, Page 14, 6th paragraph, Outfall 03A022. This paragraph states, "…WQ based effluent limitations and monitoring requirements (total recoverable aluminum, dissolved copper, and gross alpha, except for TRC as described above) in the current permit are proposed to be removed from these outfalls." Part I.A retains the requirement to monitor for copper. Please clarify.

EPA Response: See Condition of Certification No. 2 and Response to Comment No. 3.

Comment #85: Section VI, CWA 303(d) Impaired Water. Outfall 03A022 discharges to Mortandad Canyon [NMAC 20.6.4.128] impaired for Dissolved Copper, PCBs, Adjusted Gross Alpha, and Total

Mercury. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A022 due to impaired waters. [See Comment No. 3]

EPA Response: See Conditions of Certification No. 1 & 2 and Response to Comment No. 3.

Comment #86: Part I.A, Page 20, Outfall 03A160. Please delete "and other wastewater" from the description to be consistent with the Permit Re-Application Fact Sheet (Ref. ESHQSS-19-018) and Supplemental Information Package 1 (Ref. EPC-DO-19-299). This outfall only discharges treated cooling tower blowdown to the outfall (Ref. ESHQSS-19-018).

EPA Response: Change made accordingly to correctly reflect Outfall 03A160 description.

Comment #87: Part I.A, Page 20 and RP Analysis, Outfall 03A160. The data provided for the NPDES Permit application was old data from blowdown operations to the outfall prior to routing it to SWWS and prior to the installation and startup of the new wastewater treatment system outlined in a Notice of Change provided in Supplemental Information Package No. 3 (Ref. EPC-DO-19-302). New data from the cooling tower blowdown was provided for the Waste Stream Profile (WSP) to the SWWS Facility. The following bullets provide new data for three potential pollutants:

- These results showed a ND for Se using the SW846 Method at an MDL of 2.0 ug/L. This is below the EPA MQL of 5 ug/L. Please consider removing the requirements for Selenium from the permit.
- These results showed an ND for Cyanide using the EPA Method at an MDL of 1.67 ug/L. This is below the EPA MQL of 10 ug/L. Please consider removing the requirements for Cyanide from the permit.
- These results showed a lower Total Chromium concentration 6.15 ug/L using the SW 846 Method. The EPA MQL for Total Chromium is 10 ug/L. Please consider removing the requirements for Chromium VI from the permit.

Please revise the RP analysis and permit limits/requirements based upon the data provided in the bullets above. [See Enclosure 4]

EPA Response: See Response to Condition of Certification No. 2 and Response to Comment No. 3. EPA re-ran the RP and removed the limit for Chromium VI and added limit for Total Thallium in the final permit.

Comment #88: FS, Page 6, Outfall 03A160. Please delete the last sentence. The notice of change for the water treatment system was submitted to the EPA on June 12, 2019 and was provided in Supplemental Package No. 3 (Ref. EPC-DO-19-302).

EPA Response: Comment noted for the record.

Comment #89: Section VI, CWA 303(d) Impaired Water. Outfall 03A160 discharges to Ten Site Canyon [NMAC 20.6.4.128] impaired for PCBs and Adjusted Gross Alpha.
Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 03A160 due to impaired waters.
[See Comment No. 3]

EPA Response: See Conditions of Certification No. 1 & 2 and Response to Comment No. 3.

Comment #90: Part I.A, Page 9, Outfall 05A055. Please revise the WET test sampling requirements for 05A055 for the following reasons:

- Outfall 05A055 is discharged from a mixed tank in batches. The sample cannot be collected as a 3-hour composite sample. It can be collected as a grab sample from the recirculation line as the tank is discharged to the outfall. The tank is mixed and the grab sample is representative of the contents.

[See Comment No. 9]

EPA Response: See Response to Comment No. 9.

Comment #91: FS, Page 7, 1st paragraph, Outfall 05A055. Please revise the first line to the following: "…tanks, and facilities at TA-9, TA-11, and TA-16. The average…." A waste stream profile for water from TA-11 was approved after the permit application was submitted to the EPA.

EPA Response: Comment noted for the record.

Comment #92: FS, Page 7, 1st Paragraph, Outfall 05A055. Please clarify the last sentence to indicate that the operational sampling data was used in the RP analysis as follows: "Operational samples were submitted for analytical testing and those results were used in the RP Analysis."

EPA Response: Comment noted for the record.

Comment #93: FS, Page 15, 2nd Paragraph, Outfall 05A055. Please revise this paragraph to the following:

"There has been no discharge from the High Explosive Wastewater Treatment Facility (HEWTF) at Outfall 05A055 since November 2007. Normal operations since November 2007 have discharged effluent to an electric evaporator. The applicant intends to continue to operate the HEWTF using the evaporator except under abnormal conditions (i.e., maintenance or malfunction of the evaporator) or to ensure operability of the discharge equipment. There is RP for……."

The HEWTF did not resume discharges to Outfall 05A055 in the fall of 2019.

EPA Response: Comment noted for the record.

Comment #94: Section VI, CWA 303(d) Impaired Water. Outfall 05A055 discharges to Canon de Valle [NAMC 20.6.4.128] impaired for Adjusted Gross Alpha. Please revise the permit requirements in Section I.A and Section VI to reflect the methodology/approach used to assign permit requirements to Outfall 05A055 due to impaired waters.

[See Comment No. 3]

EPA Response: See Response to Comment No. 3.

Comment #95: RP Analysis, Outfall 051. Additional analysis has been performed for Outfall 051 using samples that were collected from three RLWTF effluent discharges (June 2019, March 2020, and August 2020) that occurred after the 2019 Permit Reapplication was submitted. Enclosure 5 provides the analytical data. Please revise the RP analysis to include this analytical data.

EPA Response: Comment noted for the record. See Condition of Certification No. 2 and Response to Comment No. 3. EPA re-ran RP with updated data collected during the comment period.

Comment #96: FS & RP Analysis, Outfall 001. There have been two Notice of Planned Change submitted for Outfall 001 since the Draft permit was issued in November 2019. Please see Enclosure 6 for the details and revise the fact sheet and RP analysis.

EPA Response: Comment noted for the record. RP analysis was re-run, no changes are necessary to final permit limits for Outfall 001.

Comment #97: FS, Outfall 03A048. There has been one Notice of Planned Change submitted for Outfall 03A048 since the Draft permit was issued in November 2019. Please see Enclosure 7 for the details and revise the fact sheet.

EPA Response: Comment noted for the record.

Comments from John E. Wilks, III, Veterans for Peace Chapter 63

Comment #1: Veterans For Peace, Chapter #63, strongly object to the flagrant attempt by the Los Alamos National Laboratory to circumvent the Resource Conservation and Recovery Act (RCRA) by listing on its application five (05) facilities that not have a discharge and therefore are not eligible for inclusion on the Clean Water Act regulation. The five entities inappropriately listed clearly fall into the purview of the RCRA.

The Clean Water Act addresses entities that involve "discharge or any pollutant, or combination or pollutants." The five entities that we are urging you to remove from any permit you issue, do not discharge and therefore are inappropriate for inclusion. Kindly, delete from the Clean Water Act permit those five facilities that involve handling, treating, and storing hazardous wastes, rather than discharges within the jurisdiction of the Clean Water Act. The entities for which I request deletion are, as follows:

Radioactive Liquid Waste Treatment Facility (RLWTF);
Strategic Computing Complex;
Los Alamos Neutron Science Complex, or LANSCE, facility;
National High Magnetic Field Laboratory; and
High Explosive Wastewater Treatment Facility.

Thank you for your consideration of this request.

EPA Response: Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a

remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comment from Basia Miller, Ph.D, CCNS Board Member

Comment #1: Clean Water Act permit. I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. This is just a way for LANL to get around the more stringent RCRA hazardous waste laws and regulations which should be regulating these facilities. It is against the regulations and totally illegitimate to exempt such LANL facilities from RCRA. That LANL continues to apply for Clean Water Act permits for these facilities only shows that the Lab is **not** a good neighbor to the surrounding communities, as it is seeking to weasel out—yet again—from its environmental responsibilities. LANL has a long history of just this kind of irresponsible, illegal and reckless behavior as year after year they do everything possible to avoid their responsibilities toward the communities that surround them—whether it is to limit their EJSCREEN radii essentially to Los Alamos County—possibly the richest county in the country—while ignoring the majority/minority makeup of poorer, local pueblos and the Espanola Valley and beyond—an area that LANL has already contaminated with their past discharges; or venting tritium gas with no care or even study of effects on the same local population because it's the cheapest way for the Lab to check off one of the boxes on their contract; or shipping waste to WIPP that, through total incompetence and greed, has become explosive, with no care at all for safety. LANL has not improved their safety culture at all despite

numerous demands from affected communities, government oversight entities, and state and local agencies. If EPA is truly in the business of protecting the environment, letting LANL continue to avoid proper regulation is not the way to go. EPA should require proper permit applications that meet the regulations instead of rubber stamping these illegal permits. Therefore I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete those facilities that are in the business of handling, treating, and storing hazardous waste but do not discharge, from the Clean Water Act permit so that they can be properly regulated by the more stringent RCRA regulations ,and LANL can show that they actually understand what safety means and that they are willing to operate the Lab in a safe manner.

EPA Response: EPA considered communities that may be affected by this discharge during the public notice period. For example, EPA: offered Tribal Consultation to Tribes adjacent to LANL, extended the comment period for one year, translated Public Notice document to Spanish and offered a Public Meeting and Hearing to the community.

Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was

down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comment from Rev. Jean Siegfried Darling, Minister Emerita, Peoples Church of Chicago

Comment #1: I object to Los Alamos National Laboratory (LANL) asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged wastewater to the environment for years, if not decades. Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." Some LANL facilities have no discharge from a "point source," also known as an outfall. These facilities should no longer be on the permit. I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. Such Clean Water Act permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.
I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
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- High Explosive Wastewater Treatment Facility.

Please delete from the Clean Water Act permit those facilities that are in the business of handling, treating, and storing hazardous waste, but do not discharge. Open the door to their proper and more stringent regulation under RCRA.

EPA Response: Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that

those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

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The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comment from James Eagle

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The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comment from Maj-Britt Eagle

Comment #1**:** As the wife of a US Nuclear Submarine officer for 47 years, and the mother of two,

as well as a League of Women Voter member of the nuclear waste disposal study group, I've acquired some knowledge of the effects of radiation release into the Earth ecosystem, on life broader than only human, and urge you to shut down any attempt to (1) release tritium into the atmosphere, and (2) allow the discharge of radioactive water into our surroundings here in Los Alamos and Santa Fe, New Mexico.

Further reasoning on the water discharge and permit are below:

Safety bases for both National Nuclear Security Administration and Environmental Management facilities at Los Alamos National Laboratory do not consistently or appropriately consider a potential energetic chemical reaction involving transuranic waste.

- Hazard analyses lack systematic evaluations of the chemical compatibility of transuranic waste streams. These analyses are needed to fully identify potential chemical reaction hazards associated with waste constituents.
- Accident analyses are not bounding, assume inappropriate initial conditions, and do not defensibly establish the quantity of radioactive material that may be released due to an energetic chemical reaction. As such, additional credited safety controls may be necessary to protect workers and the public.

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Some facilities store transuranic waste without any engineered controls beyond the waste container. The radiological release events that occurred at the Waste Isolation Pilot Plant and Idaho National Laboratory have demonstrated the importance of incorporating multiple layers of protection to reduce the consequences of an accident.

EPA Response: Comment noted for the record. LANL's compliance with RCRA, regulation of waste management and air emissions are outside the scope of this NPDES permitting action.

Comments from David McCoy:

Citizen Action New Mexico is opposed to the continued issuance of an NPDES permit under the Clean Water Act from at least the following five facilities at Los Alamos National Laboratory:

1. **The Radioactive Liquid Waste Treatment Facility.** This key facility, located across the street from the Plutonium Facility, treats liquid radioactive and hazardous waste contaminated by the fabrication of plutonium pits, or the triggers, for nuclear weapons. In 1963, discharges began through Outfall 051 into a tributary of Mortandad Canyon. In the late 1990's LANL instituted a "zero liquid discharge" plan to eliminate the discharge.
2. **The Strategic Computing Complex** (no discharge between September 2016 and to at least May 2019);
3. **The Los Alamos Neutron Science Complex**, or LANSCE, (facility cooling towers are no longer in use);
4. **The National High Magnetic Field Laboratory** (treated water being "discharged" to the Sanitary Wastewater System (SWWS) Plant); and
5. **The High Explosive Wastewater Treatment Facility** (since November 2007 an electric evaporator(s) has been in use).

All of these facilities should be regulated under the Resource Conservation and Recovery Act (RCRA) and the areas adjacent to these non-discharge facilities should be required to clean up the contaminated soil from past operations.
It is high time for the EPA to discontinue the fiction that these discharge permits should be issued where there is no discharge. EPA should not accommodate a lesser standard of protection for public health and environmental safety than could be obtained under RCRA. The continued issuance of such permits in the absence of discharge is contrary to law.

EPA Response: Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

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The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments received on the limited re-opening comment period on January 30, 2021

Comments from Triad National Security, LLC (Triad) EPC-DO-21-057

I. Citizen Organizations Have Misconstrued the Applicable Law

The citizen organizations' Comments offer mistaken interpretations of the Clean Water Act (CWA), the Resource Conservation and Recovery Act (RCRA), and the relationship between the two statutes, as they have in the past before the EPA Environmental Appeals Board and several federal courts. First, they erroneously assert that EPA lacks authority under the CWA to issue a discharge permit for outfalls that have not been utilized recently and/or continuously in the past and have not been described as meeting immediate future needs. Second, they mistakenly contend that the wastewater treatment unit (WWTU) exemption under RCRA applies only when the unit has been issued a discharge permit under the CWA. They string together these two misconceptions in order to construct an erroneous conclusion that EPA must deny LANL's application for a CWA permit, which will lead to a duty for the State of New Mexico to commence the permitting process for the RLWTF under RCRA. The discussion below addresses each point in turn.

A. EPA Has Clear Authority Under the CWA to Issue the Permit.

The CWA provides that EPA "may…issue a permit for the discharge of any pollutant…upon condition that such discharge will meet" various statutory limitations. 33 U.S.C. § 1342(a). This language only makes sense if it is forward looking – i.e., the issuance of a permit for future discharges that "will" comply with the statutory requirements. It would be pointless for Congress to authorize EPA to grant permission for discharges that have already occurred, and it would be impossible for the Agency to ensure that such past discharges "will meet" effluent limitations. Clearly, Congress envisioned that EPA would first grant permission, conditioned as directed in the statute, and that thereafter such discharges would be legally sanctioned.

The citizen organizations nonetheless appear to contend that there must be an imminent future discharge in order that EPA would have such authority. They maintain that "the CWA contains no authority to issue a permit for a discharge that 'could occur,' nor for a 'potential' or a 'capability' to discharge." Comments at 24. They assert that the LANL intention to discharge "in event of unavailability of evaporation equipment" falls into these categories for which EPA is powerless to issue a permit. Nothing in the statute or EPA's longstanding practice supports this contention.

The citizen organizations' contention boils down to an argument that the applicant must show it has an unconditional intention to discharge in the near future, regardless of circumstances, or at least has demonstrated that a discharge is likely, before EPA would have authority to grant the application. Id. We demonstrate below in Section II.A.1 that LANL satisfies even this extreme and erroneous test. But the statute does not mention such a limit on EPA's authority, and for

good reason. Permit applicants who envision even the possibility of a discharge in unusual or rare circumstances are in fact meeting their responsibility to avoid unpermitted, and unlawful, discharges by ensuring they have permit authorization to cover such possibilities. It would be bizarre, to say the least, if Congress had imposed on EPA an obligation to assess the likelihood that circumstances would arise necessitating a discharge, and to issue a permit only when satisfied that the probabilities were sufficiently large. In the context of such a requirement, EPA could hardly justify enforcing the statute's prohibition on unpermitted discharges if it had previously deemed such discharges to be too remote to justify issuing a permit. The statutory scheme makes no provision for such a scenario.

The citizen organizations apparently reach their remarkable position by misapplying the holdings in two decisions from the Second and Fifth Circuits. Comments, 25-28. Those decisions have nothing to do with whether EPA has authority to issue a requested permit under the CWA.

In the first decision, industry petitioners challenged a provision in EPA's programmatic regulation governing Concentrated Animal Feeding Operations (CAFOs) that had required CAFO owners and operators to apply for a CWA discharge permit if there was a "potential to discharge" from their operations.Waterkeeper Alliance, Inc. v. U.S. Environmental Protection Agency, 399 F.3d 486 (2d Cir. 2005). EPA had termed this requirement a "duty to apply," and said the duty was based on a presumption that every CAFO has the potential to discharge. See Comments at 25, n. 42. Thus, the "duty to apply" was an EPA command requiring that all CAFOs must submit themselves to regulation that would control and constrain their means of operating their businesses. The "duty to apply" was itself an enforceable requirement, punishable by civil and criminal penalties independent of whether there had been any discharge of pollutants from the CAFOs. The Second Circuit concluded that the CWA conferred no authority on EPA to compel the filing of a permit application in the absence of an actualdischarge. Because a mere potential to discharge lacks all of the elements triggering the statute's prohibition against unpermitted discharges (actual addition of pollutants to navigable waters from a point source), the court said there was "no statutory obligation of point sources to seek or obtain a [CWA] permit in the first instance." Waterkeeper Alliance, 399 F.3d at 505. Thus, there could be "no duty to apply" based on a mere potential to discharge, but the court never addressed whether EPA could issue a permit in response to a voluntary permit application. The court did not address that question because no petitioner had raised it.

Despite this context and with no regard for the limits of the case or controversy before the court, the citizen organizations focus on a single sentence in the Second Circuit's decision, calling it a "categorical ruling": the court said "the Clean Water Act gives EPA jurisdiction to regulate and control only actual discharges—not potential discharges, and certainly not point sources themselves." Id. See Comments at 25-26. The citizen organizations work to utilize the court's language – "jurisdiction to regulate and control" – in support of their theory that EPA's permit issuance authority depends on the high likelihood of a discharge. The citizen organizations' reliance on this passage misuses the court's language and should be disregarded.

First, because no party had brought a challenge to EPA's authority to issue permits (as opposed to its authority to compel submission of permit applications), the court had no occasion to address it, and interpreting the court's language to cover EPA's permit-issuance authority, as the citizen organizations endeavor to do, renders the court's passage mere dictum. Monod v. Futura, Inc., 415 F.2d 1170, 1173 (10th Cir. 1969) ("Because this issue was not properly before that court the conclusion is mere dicta and must be read as such.") Tokoph v. United States, 774F.3d 1300, 1303 (10th Cir. 2014) ("[D]icta are statements and comments in an opinion concerning some rule of law or legal proposition not necessarily involved nor essential to determination of the case in hand.") (quoting United States v.Villarreal-Ortiz, 553 F.3d 1326, 1328 n.3 (10th Cir. 2009)). Reading a court's language so as to reduce it to dicta can hardly be seen as a plausible interpretation.

Second, the context of the case leads to a different interpretation of the court's language -- one that supports the common-sense notion that EPA has jurisdiction to require the "regulat[ion] and control" of private activity only when that activity would otherwise be unlawful (e.g., the prohibited discharge of a pollutant without a permit). The court was dealing with an EPA effort to compel CAFOs' submission to a regulatory regime. EPA sought to unilaterally impose requirements on CAFOs, in the absence of pollutant discharges or any otherwise unlawful actions, by requiring them to seek a permit which, according to the regulations, inevitably would restrict the CAFOs' operations. This is what the Second Circuit said could not be done, and the quoted passage stands for no more than that.

In the second decision, industry petitioners had challenged EPA's attempt to draft around the limitation that had been imposed by the Second Circuit. National Pork Producers Council v. U.S. Environmental Protection Agency, 635 F.3d 738(5th Cir. 2011). Instead of regulating a CAFO with the "potential to discharge," EPA revised the CAFO regulation to enforce its "duty to apply" where a CAFO "proposes to discharge," and EPA defined that phrase as being a CAFO "designed, constructed, operated, and maintained in a manner such that the CAFO will discharge…." Id., 635 F.3d 738, 750. The Fifth Circuit rejected this attempt. As with the Second Circuit's decision in Waterkeeper, the Fifth Circuit in National Pork addressed only the EPA's authority to compel permit applications in the absence of actual discharges, not the Agency's quite different authority to issue a CWA permit in response to a voluntary application.

Other prominent features of the statute also underscore that EPA has jurisdiction to issue permits where discharges might or might not occur depending on external circumstances and irrespective of the applicant's aspirations or plans. EPA can exercise its jurisdiction whenever a person applies for a permit in order to remain in compliance with the law if circumstances make a discharge necessary. Nowhere is this authority better illustrated than in the storm water permitting provisions of the Act.

Storm water permitting represents a central feature of the Section 402 NPDES program. The statutory authority to permit future, episodic discharges of storm water has existed in the CWA

since passage of the landmark 1972 Federal Water Pollution Control Act Amendments, which later became known as the CWA. Pub. L. No. 92-500, 86 Stat. 816 (1972). The 1972 legislation established the Section 301 prohibition on unpermitted pollutant discharges and the Section 402 NPDES permit program. Id. at 844, 880. The same, original statutory commands and definitions that provide EPA's authority to permit discharges from LANL's Outfall 051 also provide the basis for permitting episodic storm water discharges.

In 1987, Congress enacted amendments to the CWA that required EPA to undertake rulemaking and implement comprehensive permitting for these pollutant sources. Water Quality Act of 1987, Pub. L. No. 100-4, 101 Stat. 7 (1987). While the 1987 amendments breathed new life into EPA's storm water permitting program, they did not augment the original statutory authority to deal with these future, episodic discharges. The amendments added subsection 402(p), which directs EPA to issue permits that will authorize future storm water discharges from municipal and industrial point sources in the event that precipitation, together with other circumstances at a facility, necessitate a discharge. Pub. L. No. 100-4, 101 Stat. 7, 69- 70 (1987) (codified as amended at 33 U.S.C. § 1342(p)(2)(B)—(D)).

The CWA stormwater permitting program is vast. The National Academy of Sciences estimated in 2009 that EPA and delegated States had provided NPDES storm water discharge authorizations to about 7,000 municipalities and 100,000 industrial facilities. Committee on Reducing Stormwater Discharge Contributions to Water Pollution, National Academy of Sciences, Urban Stormwater Management in the United States 36 (2009). In addition, NPDES storm water permit coverage is authorized for about 200,000 construction projects each year. Id. Storm water discharge permit holders are required to implement a variety of best management practices to retard, retain and control the runoff of storm water containing pollutants ranging from eroded soil at construction sites to petroleum and chemicals at industrial sites. Id.

Because the large number of industrial facilities requiring NPDES storm water authorizations could easily overwhelm State and federal permitting agencies, EPA has issued and periodically updates a Multi-Sector General Permit ("MSGP") and associated guidance documents to provide permit coverage for industrial dischargers. Final 2015 MSGP Documents, U.S. EPA, https://www.epa.govinpdes/final-2015-msgp-documents. The MSGP provides that dischargers must employ control measures to "divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff to minimize pollutants" in their discharges.U.S. EPA, Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity 18, § 2.1.2.6 (2015). These measures must be specified in the facility's Storm Water Pollution Prevention Plan ("SWPPP"). Id. at 33, § 5.2.4. And they must be described in detail in the discharger's permit application. See 40C.F.R. § 122.26(c).

Detention basins are a typical and widely used example of control measures that capture sediment and other pollutants washed by precipitation runoff from the facility property. Detention basins are designed to impound storm water for a time sufficient for the pollutants to

settle out and leave the storm water clean enough to be discharged by pumping the cleaner water near the basin's surface into receiving waters (thus, also creating capacity to contain runoff from the next storm). 3 Michael L. Clar, Billy J. Barfield & Thomas P. O'Connor, Stormwater Best Management Practice Design Guide: Basin Best Management Practices § 222 (2004). Detention basins are designed to control precipitation events of a certain size—e.g., the 25-year storm or the 50-year storm. Id. at § 2-2. In other words, if a future precipitation event does not exceed the "design storm," the control measure will be sufficient to promote settling of pollutants, and will result in a discharge that meets water quality objectives.

Thus, the CWA authorizes EPA to issue permits authorizing future discharges—both expected discharges based upon approved design criteria (emptying the basin following a smaller storm), and unexpected discharges that were neither planned for nor intended (overflow from a storm larger than the basin's design basis). Unexpected discharges can occur due to a number of factors beyond the discharger's control, but EPA is not required to deny a permit application because it believes the circumstances that would result in a discharge may be remote.

For storm water permitting, the relevant circumstances include extreme swings between periods of normal-to-heavy precipitation and periods of drought. It is not uncommon for extended periods of time to pass without any discharge pursuant to the discharge authorization granted by a storm water permit. See generally Drought Monitoring, National Weather Service, https://www.weather.gov/ilm/drought. Extreme and prolonged drought conditions can leave geographic areas with no precipitation for years, especially in the arid Western and Southwestern regions of the United States. Id. If prolonged periods devoid of discharges were to provide a basis for denying applications for renewal of NPDES permits, EPA's Section 402(p) permitting program would be in shambles. Unanticipated storms do occur, and when they do, there will be discharges.

For some years, LANL has occupied a similar situation here. It has designed the evaporation equipment to handle the currently expected volume of wastewater.

The operating principle has been that, if the evaporation equipment operates reliably and continuously, and if the wastewater volume does not increase due to a change in the Laboratory's mission, then Outfall 051 should not be needed. But if the evaporation equipment becomes unavailable due to malfunction or maintenance needs, and/or there is an increase in treatment demands, the LANL would need an authorization to discharge treated wastewater. LANL has made this perfectly clear in its submissions, as the citizen organizations acknowledge. Like the storm water discharger in an arid region, the operating plan has been that LANL might not discharge via Outfall 051 for extended periods, but LANL has consistently sought a permit that specifically authorizes the use of Outfall 051 in anticipation of circumstances that will make a discharge necessary -- a permit that will make that discharge lawful.

In sum, the CWA does not withhold authorization for EPA to permit future discharges in circumstances that, while they may be rare, have been anticipated and stated in the permit application. The citizen organizations' contrary interpretation of the statute should be rejected.

Furthermore, as explained below in Section II.A.1, LANL now envisions a more integral role for Outfall 051 than it has in the past. Whereas the outfall will remain as a back-up alternative when evaporation equipment is unavailable, as before, the outfall will henceforth be utilized even when evaporation equipment is on line but influent volume is of a magnitude that operational efficiency makes it advisable to rely on both the evaporation equipment and Outfall 051 simultaneously for short or longer-term periods of time.

B. The RLWTF is Exempt From RCRA Permitting Regardless of Whether EPA issues the Permit for Outfall 051.

The citizen organizations also misunderstand the applicable legal requirements in arguing that EPA should not renew the CWA permit because EPA's issuance of the permit gives effect to the WWTU exemption from RCRA permitting. Comments at 4, 23-24. They point to 40 CFR § 264.1(g)(6), which exempts the tanks and associated ancillary equipment at the RLWTF from the substantive RCRA standards. But they never mention 40 CFR § 270.1(c)(2)(v), which provides that owners and operators of wastewater treatment units "are not required to obtain a RCRA permit." Both section 264 and section 270 contribute to the WWTU exemption, one for substantive RCRA requirements, and one for RCRA permitting. Both provisions point to section 260.10 for the definition of a "wastewater treatment unit." The key element of that definition is that such a unit must be "subject to regulation under either section 402 or 307(b)" of the Clean Water Act. 40 CFR § 260.10.

EPA has a long standing and consistent interpretation of what is meant by this definition in its regulation. Nearly 30 years ago, EPA's Office of Solid Waste and Emergency Response (OSWER) issued an official directive addressing the issue. Exemption from Permitting Requirements for Waste Water Treatment Units, OSWER 9522.1992(01), 1992 WL 754630 (January 16, 1992) (ATTACHMENTA). OSWER emphasized that:

> It is important to note that it is not necessary that the Clean Water Act permits actually be issued for the units to be eligible for the RCRA exemption; it is sufficient that the facility be subject to the requirements of the Clean Water Act.

Id. at 1. Explaining further, OSWER made clear that "subject to regulation under Section 402" of the CWA covers facilities "which are permitted, were ever permitted, or should have been permitted under NPDES." Id.
OSWER went further, moreover, in explaining the exemption's applicability to so-called "zero discharge" facilities:

> With regard to the question of a "zero discharge" facility, EPA would like to clarify the difference between a facility that produces no treated wastewater as a direct result of Clean Water Act requirements and units that are not required to obtain an NPDES permit because they do not discharge treated effluent. In the first case, the facility would have had a surface water discharge at one time, but has since eliminated the discharge as a result of, or by exceeding, NPDES or pretreatment requirements. Such facility would qualify for the waste water treatment unit exemption under RCRA. In the second case, the facility never had a surface water discharge, and therefore was never subject to NPDES permitting or Clean Water Act requirements. The RCRA exemption is not available in these cases.

Id. at 2.

The Agency's directive settles the question of whether the RLWTF is exempt from RCRA permitting under 40 CFR §§ 270.1 and 260.10. Because LANL has held an NPDES permit for Outfall 051 in the past, and clearly was required to do so, the directive concludes that the exemption applies. And if, as the citizen organizations erroneously maintain, the RLWTF has "eliminated" its discharge by employing treatment technology (evaporation equipment) that meets or exceeds NPDES requirements, then the directive deems it a "zero discharge" facility, and it likewise is entitled to the exemption.

As the citizen organizations point out, in the past LANL also had erroneously assumed that continuous renewal of the NPDES permit for Outfall 051 was necessary in order for the WWTU exemption to apply. Comments at 5-7. LANL was mistaken then, just as the citizen organizations are mistaken now.

EPA Response: Triad's comments are largely in response to comments submitted by other commenters, which EPA has responded to elsewhere in these responses to comments. Triad's comments are noted for the record.

II. The Citizen Organizations' Comments are Replete with Material Errors

Finally, the discussion below addresses a number of factual errors and misconceptions in the citizen organizations' Comments that bear on LANL's use of other outfalls, LANL's flow estimates for Outfall 051, and statements lifted from prior LANL submissions to EPA.

A. Facts Concerning Discharges From LANL Outfalls.

The citizen organizations' Comments contain numerous factual errors in describing discharges from various LANL outfalls. Those errors are corrected in the discussion below.

1. Outfall 051. The Comments state that, since 2010, LANL has made only a single discharge, on June 18, 2019, from Outfall 051. See, e.g., Comments at 4, 18. That is incorrect. LANL has discharged from Outfall 051 on June 18, 2019, March 10, 2020, and August 18, 2020. These

discharges are documented in Discharge Monitoring Reports (DMRs) submitted to EPA. The citizen organizations' error may be due to their misplaced reliance on quarterly reports submitted to the New Mexico Environment Department (NMED) Ground Water Quality Bureau, which does not have jurisdiction over discharges to surface waters, rather than the DMRs LANL has submitted to EPA, which does.

The discharges in March and August of 2020 are especially noteworthy. As the citizen organizations acknowledge, LANL has made it clear that Outfall 051 is needed, and will be used, when necessary because the evaporation equipment is unavailable or when increased treatment needs arise that would not be handled in the most efficient manner by utilizing the evaporation equipment alone. Comments at 12. Since the solar evaporation tanks are not in service, the key equipment is the mechanical evaporator. On March 10, 2020, LANL discharged via Outfall 051 because influent volumes made that advisable even though the mechanical evaporator was in service. On August 18, 2020, LANL utilized Outfall 051 because the mechanical evaporator was down for maintenance, including maintenance on the burners. Thus, Outfall 051 is being used precisely as LANL has said it would be – as a back-up or supplemental alternative when circumstances require. Had Outfall 051 not been permitted to discharge on those dates, LANL would have encountered a choice of either violating the CWA or curtailing operations at one of DOE's most important laboratories.

The citizen organizations are plainly wrong in their repeated assertion that such events are "highly unlikely," see Comments at 20. Discharges from Outfall 051 are not merely events that "could occur." See Comments at 15. These discharges have occurred in the recent past, and they will occur as required by operations in the future, within the limits allowed by the permit.

In this regard, we note that LANL has recently adjusted its wastewater treatment operational plan so as to utilize Outfall 051 as an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future. As explained in the Affidavit of Stuart A. McKernan, Facility Operations Director at LANL (ATTACHMENT B), with the evaporation tanks not in service, there will be occasions on which influent to the RLWTF will be significant enough that LANL will choose to use both the mechanical evaporator and Outfall 051 simultaneously. Outfall 051 thus provides both operational flexibility and back-up capability.

2. Outfall 13S. The Comments assert that "Outfall 13S did not discharge between October 2014 and September 2018 and analytical results were taken from operational flows." This statement misrepresents the information provided in the 2019 NPDES Permit Re-Application. Outfall 13S is associated with the LANL sanitary wastewater system (SWWS) treatment facility. This facility and Outfall 13S are located at a lower elevation than all of the other outfalls at LANL, and the 2019 Permit NPDES Permit Re-Application clearly states that treated effluent from the SWWS can be discharged to Outfall 13S or pumped to the Power Plant Reuse Tank (located at a higher elevation). Treated SWWS effluent that is pumped to the Power Plant Reuse Tank is either discharged to Outfall 001 or treated for reuse at the Sanitary Effluent Reclamation Facility (SERF). Outfall 13S is

routinely maintained, has an automatic flow meter, automatic sampler, and is fully capable of receiving SWWS treated effluent based upon demand, volume, and availability of equipment to pump, store, discharge, and/or treat using facilities and equipment located at an elevation that is much higher than SWWS. The outfall provides operational flexibility for maintenance, repair, and replacement of equipment (i.e., pumps, SERF, Reuse Tank, Outfall 001) and serves as a critical backup should LANL be unable to pump to a higher elevation due to equipment failure or an increase in treated effluent volume. The analytical data provided on the 2019 NPDES Permit Re-Application Form 2C were from recently collected representative samples of the SWWS effluent before it was pumped to the Power Plant Reuse Tank or SWWS de-chlorination for discharge to Outfall 13S. The samples were collected on September 19-20, 2018 and February 22, 2019 (13S Fact Sheet Section 5.1).

3. Outfall 03A027. The Comments assert that "Outfall 03A027 did not discharge from September 2016 to at least May 2019, so older monitoring data was submitted." Comments at 20, (quoting from 03A027 LANL Fact Sheet). This statement misrepresents the information provided in the 2019 NPDES Permit Re- Application. Outfall 03A027 is located approximately 30 feet downstream from Outfall 001 and continues to be capable of receiving SCC Cooling Tower blowdown discharges. In September 2016, the valving on the blowdown line was modified to allow discharge to Outfall 03A027, Outfall 001, the Reuse Tank at the Power Plant for recycle at SERF, or the SWWS treatment plant (03A160 Fact Sheet Section 2.2 and Attachment B) based upon demand, volume, and outfall/equipment availability. The 2019 NPDES Permit Re-Application Form 2C included analytical data from DMR submittals and representative samples collected on August 29, 2018 and February 4, 2019 from a sample port on the SCC Cooling Tower blowdown line (03A160 Fact Sheet Section 5.1).

4. Outfall 03A113. The Comments assert that LANL does not discharge or propose to discharge from Outfall 03A113. Comments at 20-21. This conclusion apparently was derived from a statement in the Fact Sheet explaining that the cooling towers served by this outfall are not currently in use. Id. at 21. The Comments misrepresent the information provided in the 2019 NPDES Permit Re-Application. Outfall 03A113 receives stormwater and cooling tower blowdown from TA-53-293 and TA-53-952 (Fact Sheet Attachment B). The TA-53-952 cooling tower discharges routinely to the outfall as shown in Fact Sheet Attachment D and the various Discharge Monitoring Reports Submitted for the current permit term of October 2014 - Present. The outfall discharged 529,234 gallons in 2017, 436,400 gallons in 2018, 198,530 gallons in 2019, and 154,390 gallons as of October 30, 2020. Cooling Tower TA-53-293 is in operational standby and is currently not discharging to the outfall, but the permit application proposes this as a future discharge source to the outfall.

5. Outfall 03A160. The Comments erroneously assert that LANL does not propose to discharge from this outfall. Id. at 20-21. The statement from the Fact Sheet quoted by the citizen organizations plainly states that LANL intends to discharge from this outfall if an operational upset prevents the discharge of cooling water to the SWWS. The cooling tower blowdown discharged to Outfall

03A160 was routed to SWWS in May of 2018 to support the recycling of water through the SERF facility and to allow the NHMFL to construct a water treatment system and perform rehabilitation of the cooling system (i.e., replace heat exchangers, tank cleaning, tank integrity testing). The 2019 NPDES Permit Re-Application proposed discharges to that outfall based upon historical data and the use of the outfall as an operational backup. The proposed water treatment system mentioned in the permit and the cooling system rehabilitation were completed in the summer of 2020. A representative sample of the cooling tower blowdown was recently collected, and those supplemental data were provided as an attachment to the Triad Comments on the Draft Industrial and Sanitary Wastewater NPDES Permit No. NM0028355 published for public comment on November 30, 2019.

6. Outfall 05A055. The Comments assert that Outfall 05A055 did not discharge between October 2014 and September 2018; that it has not discharged since November 2007, and that the analytical results were taken from operational flows. These statements misrepresent the information provided in the 2019 NPDES Permit Re-Application. Outfall 05A055 is associated with the High Explosives Waste Water Treatment Facility (HEWTF) and is located in a remote part of LANL. The 2019 NPDES Permit Re-Application clearly states "The treatment process is designed to circulate the wastewater through the process multiple times prior to storage in the post treatment tanks and discharge to either electric evaporators or to Outfall 05A055" (05A055 Fact Sheet Section 2.2.). Outfall 05A055 is fully capable of receiving treated HEWTF effluent based upon demand, volume, and availability of evaporation equipment. The outfall provides operational flexibility for maintenance, repair and replacement of equipment (i.e., evaporator), and serves as a critical backup should LANL be unable to evaporate effluent. There will be occasions when the volume of effluent or equipment availability (i.e., evaporator) will require discharge to Outfall 05A055. This is demonstrated in the discharge monitoring reports submitted to the EPA for previous discharges to the outfall. The 2019 NPDES Permit Re-Application Form 2C included analytical data from representative samples of the effluent that were collected on September 26, 2018 and January 24, 2019 (05A055 Fact Sheet Section 5.1).

B. Renewal Application Flow Estimates.

The citizen organizations' Comments assert that LANL's estimates of average and maximum flow rates at Outfall 051 "are inaccurate and are misstatements, since discharges from Outfall 051 ended in 2010 (with a single exception, termed an operational readiness discharge)." Comments at 18. As demonstrated by the discussion above, the premise of this assertion – that discharges from Outfall 051 ended in 2010 – is incorrect. The flow-rate estimates are correct; the 2019 NPDES Permit Re-Application provided volumes and frequencies on Form 2C Section II.C that were estimated based upon the total capacity of the two treated effluent tanks (20,000 gallons) at the RLWTF and a proposed operational scenario where one or both of those tanks discharged four days a week and 12 months a year. The proposed discharge volume, therefore, was an estimated average volume of 20,000 gallons/day or an estimated maximum volume of 40,000 gallons/day.

C. Misplaced Reliance on Documents Associated With Prior Permits.

The citizen organizations' Comments make extensive references to snippets of language from LANL submissions and associated documents dating back decades, and they emphasize the fact that LANL requested that some of its prior submissions be considered part of the 2019 re-application due to the complex nature of the NPDES Permit Re-Application and potential need for supplemental information. Comments at 19. In seeking to ensure that all available data are accessible to EPA, LANL obviously did not intend for the Agency to rely on outdated or inaccurate information where more recent data are available. Information submitted in connection with the 2019 Re-Application supersedes the data provided in previous applications to the extent there is conflict and/or overlap.

EPA Response: Triad's comments are largely in response to comments submitted by other commenters, which EPA has responded to elsewhere in these responses to comments. Triad's comments are noted for the record.

Comments from Triad National Security, LLC (Triad) EPC-DO-21-058

The purpose of this letter is to notify the EPA of the petition and supplemental filing for review of the State 401 Certification of NPDES Permit No. NM0028355 by the U.S. Department of Energy National Nuclear Security Administration (DOE/NNSA) and Triad National Security , LLC (Triad) ("Permittees"). The petition and supplemental challenge Conditions 1 and 2 of the 401 State Certification. The Permittees requested the New Mexico Environment Department to withdraw these conditions on the basis that they are outside the scope of allowable state imposed conditions under the federal Clean Water Act and EPA's regulation of the Section 401 certification process. In addition, for the reasons stated in the Supplement and incorporated herein, the Permittees request that the EPA not include Condition 1 in the final NPDES permit.

1. Condition 1 requires Triad/DOE to (a) "monitor and report [18] PFAS in effluent once during the first year of coverage, or when the facility next discharges if no discharge occurs during the first year;" (b) analyze samples "for all 18 PFAS analytes using EPA Method 537.1 (EPA 2018);" and (c) if PFOA or PFOS "are detected above the New Mexico screening level, additional monitoring and reporting shall occur annually." Condition 1 also recommends that Triad/DOE "take corrective action and identify ways to minimize, reduce, and eliminate PFAS from the industrial activity through product substitution and/or additional best management practices and operational control." As explained below, none of the 18 PFAS analytes are identified as toxic pollutants in the state surface water quality standards and the requirements in Condition 1 are not necessary to ensure compliance with applicable surface water quality standards under the federal Clean Water Act and the New Mexico Water Quality Act, and therefore exceed the limited scope of the New Mexico Environment Department's ("NMED") authority under federal and state law. First, neither the Toxic Release Inventory's ("TRI") list of reportable chemicals or EPA's Toxic Substances and Disease Registry support the imposition of surface water discharge compliance requirements. Second, NMED does not address the applicable technical criteria to support the 401 Certification's requirements for the 18 PFAS analytes to protect surface waters standards.

The process in the WQCC regulations requires NMED to undergo a process to determine whether the 18 PFAS analytes meet the criteria for toxicity for surface water protection. See 20.6.4.7 and 20.6.4.13(f) NMAC. Third, even if PFAS could be regulated as proposed, NMED first must determine the amount of PFAS in surface waters that are toxic, given the location of the discharge and other factors, and then determine whether the discharge of PFAS has a "reasonable potential" to cause or contribute to an exceedance of that amount. Finally, the analytical methods that Condition 1 mandates, Methods 537 and 537.1, are not approved by EPA under 40 CFR Part 136, and therefore, cannot be used for 401 certifications or compliance determination.

2. Condition 2, in part, sets an effluent limit for Polychlorinated Biphenyls ("PCBs") for Outfall 051 and mandates that monitoring and reporting of PCBs from all of the outfalls be performed in accordance with Method 1668C. As explained below, effluent limits for Polychlorinated Biphenyls ("PCBs") for Outfall 051 are not necessary to assure compliance with applicable requirements of federal and state law because (a) EPA did not determine that there is a reasonable potential to exceed applicable water quality standards for PCBs at Outfall 051, and therefore, there is no basis for requiring an effluent limitation for the discharge; and (b) NMED's justification for the condition does not demonstrate that discharges from Outfall 051 have a reasonable potential to cause or contribute to an exceedance of applicable water quality standards. Additionally, the analytical method mandated by Condition 2, Method 1668C, is not approved for PCBs under 40 CFR Part 136, and therefore, cannot be used for 401 certifications or compliance determinations.

EPA Response: The Final Stipulated Orders for the LANL challenges to the LANL industrial outfalls IP (NPDES NM0028355) were signed by all parties on December 30, 2021. A modified Conditions of Certification was received by EPA on January 31, 2022. Conditions of Certifications are added to the final permit in order to comply with 40 CFR § 124.55(a)(2).

Comments from Triad National Security, LLC (Triad) EPC-DO-20-075

The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for the Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) requires the permittee(s) to notify the U. S. Environmental Protection Agency (EPA) of any physical alterations or additions to a permitted facility that could significantly change the nature or increase the quantity of pollutants discharged (see Part III.D.1.a.Report Requirements).

This notice of planned change provides information regarding the following changes at the RLWTF:

1. Updated Table 4 of the Fact Sheet for Outfall 051 with flow rates and volumes based upon actual data from the discharges to Outfall 051 in June 2019, March 2020, and August 2020 previously provided with the Triad comments on October 26, 2020. Attachment 1 provides a red line of the Fact Sheet. This change will not increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

2. Updated Section 5.0 of the Fact Sheet for Outfall 051 to include the analytical data from the discharges to Outfall 051 in June 2019, March 2020, and August 2020 previously provided with the Triad comments on October 26, 2020. Attachment 1 provides a red line of the Fact Sheet. This change will not increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

3. Updated Table 3 of the Fact Sheet for Outfall 051 to add four new chemicals to the treatment process at the RLWTF. The chemicals include sodium bicarbonate, calcium carbonate, magnesium chloride, and calcium chloride will be added each effluent tank prior to its discharge to Outfall 051. The addition of these chemicals will raise the pH, alkalinity, and hardness to improve effluent quality prior to discharge. Attachment 1 provides a red line of the Fact Sheet. Attachment 2 provides Safety Data Sheets (SOS) for each chemical. This change will not increase the quantity of pollutants in effluent or the volume discharged to the outfall.

4. Updated Table 3 of the Fact Sheet for Outfall 051 to add sodium hypochlorite to the treatment process at the RLWTF. Sodium hypochlorite will be used to clean and/or disinfect the reverse osmosis unit(s). Attachment 1 provides a red line of the Fact Sheet. Attachment 2 provides Safety Data Sheets (SOS). This change will not increase the quantity of pollutants in effluent or the volume discharged to the outfall.

5. Piping modification to improve the effluent discharge line to Outfall 051. The modification will remove the flexible hose effluent line that currently connects to the outfall discharge line and replace it with hard pipe routed through an underground trench box to the outfall discharge line. Attachment 3 provides drawings that show the existing flexible hose and the new piping and trench box. This change will not increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

The NNSA/DOE and Triad respectfully submit the contents of this notice of change in accordance with the existing NPDES Permit NM0028355 and request that the information be included in the record in accordance with the provisions identified in the Public Notice: Los Alamos National Laboratory (LANL) Limited Reopening of the Public Comment Period for NPDES Permit No. NM0028355.

EPA Response: Comments noted for the record. EPA has considered these updates and/or modifications while the finalization of this permit.

Comments Received from Concerned Citizens for Nuclear Safety (CCNS), Honor our Pueblo Existence (HOPE), and New Mexico Acequia Association (NMAA) – February 23, 2021

The Environmental Protection Agency ("EPA") public notice reopening the comment period states: On November 12, 2020, Triad, which is the operator of the LANL facility, and was only privy to the content of public comments after the comment period closed, requested that EPA reopen the comment period to allow submittal of additional information on the Record to address information provided in the comments believed by Triad to be incomplete, misleading, or technical[ly] inaccurate that would help EPA in responding to those comments and make a final permit decision.

CCNS, H.O.P.E. and NMAA note that the "new" information referenced in our October 15, 2020 Comments of Concerned Citizens for Nuclear Safety, Honor Our Pueblo Existence, and New Mexico Acequia Association on Proposed Renewal of NPDES Permit # NM0028355 is not "incomplete, misleading, or technical[ly] inaccurate." Our new information is based on Department of Energy and Triad National Security, LLC (and its predecessor) documents.

EPA appears to have adopted an approach that authorizes interested parties to address submissions by other such parties. To permit such responses to be submitted equitably, we respectfully request EPA grant the public a three (3) week period of time to respond to the materials to be submitted by Triad. We request that the three (3) week comment period commencing when a public notice is released to the mailing list and when the Triad comments, and all comments submitted by others, are posted to the "Review associated documents" webpage at https://www.epa.gov/nm/los-alamos-national-laboratory-lanl-limited-reopeningpublic-comment-period-npdes-permit-no-0

We note that the current comment period ends on Sunday, February 28, 2021. Generally, when comment periods end on a Sunday, the comments are due the next day, or on Monday, March 1, 2021.

EPA Response: EPA granted CCNS et al. a comment period extension of four weeks instead of the three-week extension requested by the commenters. The comment period was extended from February 28, 2021, until March 29, 2021. EPA confirms that when a comment period ends on a Sunday, EPA accepts the comments on the following business day.

Comments received by Robert Hake, Innocent Victim of Nuclear Technology:

Hello Evelyn, thank you for the opportunity to comment on the proposed release of poison from Los Alamos Labs. Please register my objections to any release or discharge of any ionic waste from the Los Alamos Labs for any reason whatsoever.

It would be more appropriate to take that stuff to Washington D.C. and bury it under the White House and the Pentagon. Those monuments are being made into lies by such tactics as the legal ploys being used to get rid of the risk and bad karma it represents. The government and official paid lackeys do not have the right to ruin the lands and lives of citizens of the world, that includes all life. We the People ..... remember that document?

STOP THE POISONING OF THE ENVIRONMENT AND THE BEINGS OF THIS WORLD. Science does not have to equal death, enough of that has already come from Los Alamos Labs.

PLEASE STOP IT!!!.
Robert Hake, Innocent victim of nuclear technology, Santa Fe, New Mexico.

EPA Response: Comment noted for the record. Comments state an opinion and do not reference specific sections of the draft permit. Accordingly, no changes were made to the final permit in response to this comment.

Comments received by Jean Stevens:

I support the New Mexico Environment Department recommendation that all Los Alamos National Laboratory (LANL) discharge sites covered by the permit be sampled for PFASs. I object to LANL asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged wastewater to the environment for years, if not decades.

Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." Some LANL facilities have no discharge from a "point source," also known as an outfall. These facilities should no longer be on the permit.

I object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. Such permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.

I object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete from the Clean Water Act permit those facilities that are in the business of handling, treating, and storing hazardous waste, but do not discharge. Open the door to their proper and more stringent regulation under RCRA. Thank you for your careful consideration of my comments.
EPA Response: Comment noted on the PFAS monitoring. PFAS monitoring was deleted from the Conditions of Certification when the final stipulated orders were signed by NMED and LANL on December 30, 2021.

Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments received by Castille Aguilar, YUCCA Leadership:

My name is Castille Aguilar, and I am a leader from YUCCA (Youth United for Climate Crisis Action); we are a youth led and primarily BIPOC organization that focuses on social and climate justice here in Northern NM. We support the New Mexico Environment Department's recommendation that all Los Alamos National Laboratory (LANL) discharge sites covered by the permit be sampled for PFASs. We object to LANL asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged wastewater to the environment for years, if not decades.

Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." Some LANL facilities have no discharge from a "point source," also known as an outfall. These facilities should no longer be on the permit.

We object to EPA issuing a permit for facilities that handle, treat and store hazardous waste, but do not discharge. Such permitting confers an exemption from more stringent Resource Conservation and Recovery Act (RCRA) hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from RCRA.

We object to EPA issuing a permit for those LANL facilities that have not discharged, such as the

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete from the Clean Water Act permit those facilities that are in the business of handling, treating, and storing hazardous waste, but do not discharge. Open the door to their proper and more stringent regulation under RCRA. We need to make sure that our communities that bare the brunt of environmental racism and toxic dumping are not being further harmed by these issues; we need to stop turning a blind eye when industries and facilities are polluting our air, water, and land.

Thank you for your careful consideration of my comments.

EPA Response: Comment noted on the PFAS monitoring. PFAS monitoring was deleted from the Conditions of Certification when the final stipulated orders were signed by NMED and LANL on December 30, 2021.

Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they

discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments received by John E. Wilks, Veterans for Peace:

This public comment is timely electronically filed prior to the March 3rd deadline to file under the reopened Comment Period. Our organization filed a comment November 1, 2020, prior to the discovery of new information surfaced by the non-governmental entities Honor Our Pueblo Existence and the New Mexico Acequia Association.
The Environmental Committee of Veterans For Peace, Chapter #63 (Albuquerque), urges your office to reject the application for a water discharge permit filed by Triad National Security, LLC, (Triad) on

behalf of the Los Alamos National Laboratory (LANL), as five or more entities listed on the application are not eligible permittees.

The application under consideration lists five of six ineligible entities:

~ Radioactive Liquid Waste Treatment Facility (RLWTF) aka Outfall 051,
~ Strategic Computing Complex,
~ Los Alamos Neutron Science Complex, or LANSCE, facility,
~ National High Magnetic Field Laboratory, and
~ High Explosive Wastewater Treatment Facility.

The Clean Water Act provides for permits to be issued *only* for "the discharge of any pollutant, or combination of pollutants." The five entities listed above do not discharge, rather they handle, treat, and store hazardous waste. Issuing a permit to these ineligible entities would create an exemption from the more stringent requirements found in the Resource Conservation and Recovery Act (RCRA). By filing the pending application, the applicant is attempting to skirt the DOE's more stringent regulations concerning hazardous waste.

The Los Alamos National Laboratory is subject to multi-jurisdictional, dual oversight. For matter of wastes generated at the site, the Departments of Interior and Energy have joint responsibility. Also, for non-radioactive wastes, the New Mexico Environmental Department has a licensing role in the oversight at LANL. We believe that Triad hopes to persuade the EPA to provide an expedient avenue for Triad to avoid the more stringent regulations and statutes that address certain radioactive wastes. In our view, Triad is attempting to avoid DOE guidelines and requirements.

We urge your office to reject the permit, require a new permit application to be filed prior LANL's discharge of any additional waste water, and to investigate and identify the point source of the elevated levels of PFAS recently detected by New Mexico's Environment Department in the canyons below the Pajarito Plateau.

EPA Response: Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that

waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments received by Basia Miller, PhD:

I support the New Mexico Environment Department recommendation that all Los Alamos National Laboratory (LANL) discharge sites covered by the permit are sampled for PFASs and PCBs at the most protective standards possible. This is a responsible and community-respecting position.

However, I object to LANL asking the Environmental Protection Agency (EPA) to issue a Clean Water Act permit for industrial facilities that have not discharged treated wastewater to the environment for years, even decades. Clean Water Act permits may be granted only for "the discharge of any pollutant, or combination of pollutants." These LANL facilities should no longer be covered by the permit.

Likewise, I object to EPA issuing a permit to LANL for facilities that handle, treat and store hazardous waste, but do not discharge. Such permitting confers an exemption from more protective hazardous waste laws and regulations. The only reason to issue a Clean Water Act permit is to illegitimately exempt LANL facilities from hazardous waste laws and regulations and to deny the public the opportunity for a public hearing for the newly constructed low-level radioactive liquid waste treatment facility.

I object to EPA issuing a permit for those LANL facilities that do not discharge at present, including:

- Radioactive Liquid Waste Treatment Facility (RLWTF),
- Strategic Computing Complex;
- Los Alamos Neutron Science Complex, or LANSCE, facility;
- National High Magnetic Field Laboratory; and
- High Explosive Wastewater Treatment Facility.

Please delete these facilities from the Clean Water Act permit. They are in the business of handling, treating, and storing hazardous waste but do not discharge. Open the door to their proper and more stringent regulation under RCRA and the opportunity for a public hearing about the newly constructed low-level radioactive liquid waste treatment facility.

Thank you for your careful consideration of my comments.

Sincerely, Basia Miller, Ph.D 2848 Vereda de Pueblo, Santa Fe, NM 87507

EPA Response: Comment noted on the PFAS and PCB's monitoring. PFAS monitoring was deleted from the Conditions of Certification when the final stipulated orders were signed by NMED and LANL on December 30, 2021. PCB monitoring and limits are added as specified on Conditions #2 from NMED.

Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular. In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the

Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

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The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action.

Comments received by CCNS, HOPE and NMAA (Citizens):

These supplemental comments on the proposed renewal of National Pollutant Discharge Elimination System ("NPDES") Permit No. NM0028355 are filed on behalf of Concerned Citizens for Nuclear Safety ("CCNS"), Honor Our Pueblo Existence ("H.O.P.E."), and the New Mexico Acequia Association ("NMAA") (collectively, "Citizens").

1. The Department of Energy ("DOE") has filed supplemental arguments (Feb. 25, 2021) ("Supp.") in pursuit of renewal of an NPDES permit for Outfall 2 051 at the Radioactive Liquid Waste Treatment Facility ("RLWTF"). These materials state DOE's current intentions as to the operation of that facility.

2. As is detailed in Citizens' Comments (Oct. 15, 2020), DOE adopted a "zero liquid discharge" program at the RLWTF in 1998 and carried out that program by installing mechanical evaporator equipment in about 2010 and constructing solar evaporation "tanks" in 2012. The tanks are still undergoing permitting. Despite the successful program to eliminate discharges, DOE seeks a renewed Clean Water Act, 33 U.S.C. § 1251 et seq. ("CWA"), permit under the NPDES, 33 U.S.C. § 1342.

3. The NPDES statute authorizes EPA to issue a permit for a "discharge," and DOE is correct that the statutory and regulatory references to discharges are "forward-looking." (Supp. 3). As to its intentions, DOE has stated that it seeks a permit for the RLWTF's Outfall 051 for the purpose of discharging if the evaporation equipment is out of service or the quantity of wastewater is such that additional disposal methods, beyond the evaporation units, are required. DOE states:

> The operating principle has been that, if the evaporation equipment operates reliably and continuously, and if the wastewater volume does not increase due to a change in the Laboratory's mission, then Outfall 051 should not be needed.

(Supp. 13. See also Supp. 3, 8; Citizen Comments, ¶ 37-41). In its supplemental comments, DOE adds only that it plans to operate Outfall 051 in an "integral" manner (Supp. 13, "integral role," 18, "integral component") with the evaporation equipment. DOE does not explain this statement, but it clearly does not amount to a plan or proposal actually to discharge via the outfall in the future. DOE offers no commitment to use the outfall at any particular time or for discharge of any particular amount of wastewater or pollutants.

4. In a Notice of Planned Change (Feb. 25, 2021), filed with the supplemental comments, DOE substitutes new data concerning the volume of possible discharges from Outfall 051 for the "estimates" previously provided. The previous "estimates" expressed only the quantity of discharges that is theoretically possible—not planned or proposed. The latest figures, derived from a discharge made in 2020, do not represent a quantity that DOE plans or proposes to discharge in the future. DOE's position remains that it wishes to discharge via Outfall 051 only if the evaporation equipment is unavailable or its needs to discharge wastewater change. In proceedings held by the State of New Mexico, testimony from two expert witnesses has established that the occurrence of such circumstances is "highly unlikely." (Ex. AAA to Citizens' Comments).

5. The Clean Water Act authorizes EPA only to issue a NPDES permit for a "discharge." 33 U.S.C. § 1342(a). DOE argues that its stated intention to discharge only if certain conditions occur—i.e., when and if evaporation equipment is unavailable or additional capacity is needed, if ever—is sufficient to support a NPDES permit. DOE also contends that, if it obtains a NPDES permit for Outfall 051, it would then be entitled to the Wastewater treatment unit exemption, 42 U.S.C. § 6903(27); 40 C.F.R. § 260.10 (Tank system, Wastewater treatment unit); § 264.1(g)(6), from hazardous waste regulation under the Resource Conservation and Recovery Act, 42 U.S.C. § 6921 et seq. ("RCRA"), for the entire RLWTF. DOE is in error on both issues.

6. DOE's argument is presented entirely without reference to the applicable statute and regulations, which control here. Under the CWA, EPA's only authority to grant a NPDES permit is § 1342, which authorizes EPA to issue a permit only for the "discharge of any pollutant, or combination of pollutants." 33 U.S.C. § 1342(a). Numerous decisions have established that the statutory element of a "discharge" is clear under Chevron 1, Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 843 n.9 (1984), analysis and is not met by anything less. Where there is no discharge, EPA has no authority to issue a permit. Recent cases are Waterkeeper Alliance, Inc. v. U.S. EPA, 399 F.3d 486 (2d Cir. 2005), and National Pork Producers Council v. U.S. EPA, 635 F.3d 738 (5th Cir. 2011). In unambiguous language, Waterkeeper states that the CWA requires a discharge to support an NPDES permit:

> Congress left little room for doubt about the meaning of the term "discharge of any pollutant." The Act expressly defines the term to mean "(A) any addition of any pollutant to navigable waters from any point source, [or] (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." 33 U.S.C. § 1362(12). Thus, in the absence of an actual addition of any pollutant to navigable waters from any point, there is no point source discharge, no statutory violation, no statutory obligation of point sources to comply with EPA regulations for point source discharges, and no statutory obligation of point sources to seek or obtain an NPDES permit in the first instance.

Waterkeeper, 399 F.3d at 504-05. The Second Circuit emphasized that its decision was based on Chevron 1 analysis:

> For all these reasons, we believe that the Clean Water Act, on its face, prevents the EPA from imposing, upon CAFOs [concentrated animal feeding operations], the obligation to seek an NPDES permit or otherwise demonstrate that they have no potential to discharge. See Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U.S. 837, 842-43, 81 L. Ed. 2d 694, 104 S. Ct. 2778 (1984) (where Congress has "directly spoken to the precise question at issue" and "the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."). Id. 506 (footnote omitted).

7. DOE asserts that Waterkeeper holds only that EPA may not require an NPDES application from a non-discharging entity. (Supp. 5). However, the decision is emphatic that a person who has only an asserted "potential" to discharge—as DOE claims the RLWTF does—is not subject to the CWA:

> The CAFO Rule violates this statutory scheme. It imposes obligations on all CAFOs regardless of whether or not they have, in fact, added any pollutants to the navigable waters, i.e., discharged any pollutants. After all, the Rule demands that every CAFO owner or operator either apply for a permit - and comply with the effluent limitations contained in the permit - or affirmatively demonstrate that no permit is needed because there is "no potential to discharge." See 40 C.F.R. §§ 122.23(d) and (f). In the EPA's view, such demands are appropriate because all CAFOs have the potential to discharge pollutants. See Preamble to the Final Rule at 7202 ("The 'duty to apply' provision is based on the presumption that every CAFO has a potential to discharge."). While we appreciate the policy considerations underlying the EPA's approach in the CAFO Rule, however, we are without authority to permit it because it contravenes the regulatory scheme enacted by Congress; the Clean Water Act gives the EPA jurisdiction to regulate and control only actual discharges - not potential discharges, and certainly not point sources themselves. See National Resources Defense Council v. EPA, 273 U.S. App. D.C. 180, 859 F.2d 156, 170 (D.C. Cir. 1988) (noting that "the [Act] does not

> empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants"). To the extent that policy considerations do warrant changing the statutory scheme, "such considerations address themselves to Congress, not to the courts." MCI Telecomms. Corp. v. AT&T Co., 512 U.S. 218, 234, 129 L. Ed.2d 182, 114 S. Ct. 2223 (1994) (citation omitted).

Waterkeeper, 399 F.3d at 505.

8. In National Pork, the Fifth Circuit concurred with the Second Circuit's reasoning and decision:

> The Second Circuit's decision is clear: without a discharge, the EPA has no authority and there can be no duty to apply for a permit.
>
> * * *
>
> Because the issues presented in Waterkeeper are similar to the issues presented here, we find the Second Circuit's analysis to be instructive and persuasive. Accordingly, we decline to uphold the EPA's requirement that CAFOs that propose to discharge apply for an NPDES permit.

National Pork, 635 F.3d at 750. In Waterkeeper and National Pork EPA did not seek certiorari to challenge the court of appeals rulings and instead withdrew the contested regulations. EPA, Revised Regulation in Response to Waterkeeper Decision, 71 Fed. Reg. 37744 (June 30, 2006); EPA, Removal of Vacated Elements in Response to 2011 Court Decision, 77 Fed. Reg. 44494 (July 30, 2012). EPA stated publicly that a non-discharging facility is outside its regulatory reach:

> The EPA accepts the decision of the Court that vacated the requirement that CAFOs that propose to discharge apply for NPDES permits and the EPA lacks the discretion to reach a different conclusion.

77 Fed. Reg. 44494, 4496.

9. DOE contends that Waterkeeper and National Pork "had nothing to do with EPA's authority to issue CWA permits, but focused instead on EPA's lack of authority to require persons to apply for permits in the absence of actual pollutant discharges—as if the questions were unrelated. Obviously, they are not unrelated, as those cases expressly state. Both decisions hold that EPA cannot lawfully issue a CWA permit for a so-called "potential" discharge, and therefore EPA cannot demand a permit application for a "potential" discharge.

10. These court of appeals decisions follow the Chevron 1 principle that, if a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect. Chevron, 467 U.S. at 843 n.9. See also INS v. Cardoza- Fonseca, 480 U.S. 421, 447 (1987).

11. The Supreme Court has elaborated concerning the clear language of 33 U.S.C. § 1342(a):

> The triggering statutory term here is not the word 'discharge' alone, but 'discharge of a pollutant,' a phrase made narrower by its specific definition requiring an 'addition' of a pollutant to the water. § 1362(12).

S.D.Warren Co. v. Maine Board of Environmental Protection, 547 U.S. 370, 381- 82 (2006). National Wildlife Federation v. Gorsuch, 693 F.2d 156, 165 (D.C. Cir. 1982), accordingly holds that to require NPDES permits, five elements must be present (1) a pollutant must be (2) added (3) to navigable waters (4) from (5) a point source.

National Wildlife Federation v. Consumers Power Co., 862 F.2d 580 (D.C. Cir. 1988), restates the same principles. Id. at 583. As the Tenth Circuit has stated:
The CWA sets forth guidelines for the NPDES permits for the discharge of pollutants in Section 402, 33 U.S.C. § 1342. To establish a violation of these sections, a plaintiff must prove that the defendant (1) discharged (2) a pollutant (3) into navigable waters (4) from a point source (5) without a permit.

Sierra Club v. El Paso Gold Mines, 421 F.3d 1133, 1141-1142 (10th Cir. 2005). Further, In re Lowell Vos, 2009 EPA ALJ Lexis 8 (2009), states that "EPA agrees that it cannot require one to obtain an NPDES permit on the basis of a mere potential to discharge." Id. at *63.

12. In addition, the CWA requires permits issued by EPA1 to be subject to these terms:

> (1) To issue permits which--
> * * *
> (C) can be terminated or modified for cause including, but not limited to, the following:
> * * *
> (iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge . . .

33 U.S.C. § 1342(b)(1). Thus, under the CWA, in the event that there is no discharge, the permit is subject to termination.

13. Regulatory exclusions from the requirement of a permit for a discharge cannot stand. See, e.g., National Cotton Council v. U.S. EPA, 553 F.3d 927 (6th Cir. 2009) (regulatory exclusion for pesticides applied in accordance with Federal Insecticide, Fungicide, and Rodenticide Act held in conflict with CWA); Northwest Environmental Advocates v. U.S. EPA, 537 F.3d 1006 (9th Cir. 2008) (exclusion for ship discharges held in conflict with CWA); Northern Plains Research Council v. Fidelity Exploration and Development Co., 325 F.3d 1155 (9th Cir. 2003) (exemption for disposal of produced water held preempted by CWA); League of Wilderness Defenders v. Forsgren, 309 F.3d 1181 (9th Cir. 2001) (EPA lacks authority to exempt point

source from permit requirement); Natural Resources Defense Council, Inc. v. Costle, 568 F.2d 1369, 1377 (D.C. Cir. 1977) (exclusions for silvicultural, various animal feeding operations, and other operations held unauthorized).

[1]The quoted language refers to authorized state programs. Under § 1342(a)(3), EPA's federal program must contain the same requirements.

14. The reviewing court in each case held the CWA unambiguous and, therefore, its analysis invoked Chevron 1: "The Clean Water Act is not ambiguous. Further, it is a fundamental precept of this Court that we interpret unambiguous expressions of Congressional will as written." National Cotton Council, 553 F.3d at 929. "The text of the statute clearly covers the discharge at issue here." Northwest Environmental Advocates, 553 F.3d at 1021. "The reasons for our conclusion are apparent from the statute's terms." Northern Plains Research Council, 325 F.3d at 1160. "The Forest Service's argument fails because the statute is clear and unambiguous." League of Wilderness Defenders, 309 F.3d at 1185. "The wording of the statute, legislative history, and precedents are clear. .

. . We find a plain Congressional intent to require permits in any situation of pollution from point sources." Natural Resources Defense Council, Inc. v. Costle, 568 F.2d at 1377, 1383.

15. If the CWA had left any room for doubt, Chevron 2 analysis shows that DOE's argument is not a "permissible" reading of the statute. Where statutory language is ambiguous, the Court may "turn to the relevant regulatory definition in understanding the statutory meaning of [the] term." Dalzell v. RP Steamboat Springs, LLC, 781 F.3d 1201, 1209 (10th Cir. 2015). In Seneca-Cayuga Tribe of Oklahoma v. National Indian Gaming Commission, 327 F.3d 1019 (10th Cir. 2003), the court pointed out that the responsible agency's regulations offer important guidance as to the meaning of ambiguous terms, and, if reasonable, may be considered controlling:

> [C]onsiderable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer, and the principles of deference to administrative interpretations . . . consistently followed . . . whenever decision as to the meaning or reach of a statute [] involves reconciling conflicting policies, and a full understanding of the force of the statutory policy in the given situation [] depends upon more than ordinary knowledge respecting the matters subjected to agency regulations.

Seneca-Cayuga Tribe, 327 F.3d at 1036. Thus, deference to an agency's regulations rests upon "the notion that the 'rule-making process bears some resemblance to the legislative process and serves to temper the resultant rules such that they are likely to withstand vigorous scrutiny.'" Id. at 1036. Finding the regulation a reasonable construction, the Court stated that "we therefore accord it 'controlling weight'." United States v. 162 Megamania Gambling Devices, 231 F.3d 713, 718-19 (quoting Chevron, 467 U.S. at 842-44); see also Seneca-Cayuga Tribe, supra, at 1040, 1043.

16. Here, EPA's regulations offer a clarifying construction. EPA is authorized to "prescribe such regulations as are necessary to carry out the functions under this Act." 33 U.S.C. § 1361(a). Under 40 C.F.R. § 122.21, a person who "discharges or proposes to discharge" a pollutant has a "duty to apply"—thus, a statutory requirement—to obtain an NPDES permit. To "propose" is to purpose, plan or intend. Webster's New World Dictionary, 2d ed. Other regulatory language makes plain that a proposed discharge is one that is actually planned and thereafter carried out. See 40 C.F.R. § 122.21(c). Thus, one who proposes to discharge actually intends to do so; the proposal is not a hypothetical prospect, nor speculation about the possibility of a future discharge in prospective conditions; such would fall outside "the bounds of reasonable interpretation," Arlington v. FCC, 569 U.S. 290, 296 (2013), because it would reduce what Congress enacted as a clear limit upon permit issuance to an unverifiable and meaningless product of the imagination.

17. For such reasons the additional five outfalls that DOE seeks to include in a CWA permit, but which do not currently discharge nor propose to discharge, cannot lawfully be permitted under 33 U.S.C. § 1342. The CWA does not regulate an outfall that serves only as a backup or potential discharge point, for use if certain conditions are met. The CWA regulates only an outfall that actually discharges or proposes to discharge.[2]

[2]Thus, the listed discharge points do not come within 33 U.S.C. § 1342(a)(1) or 40 C.F.R. § 122.21(a)(1):

1.Outfall 13S: The supplemental comments state that this outfall "is fully capable of receiving SWWS (Sanitary Wastewater Treatment System) treated effluent based upon demand, volume, and availability of equipment to pump, store, discharge, and/or treat using facilities and equipment located at an elevation that is much higher than SWWS." (Supp. 19 – 20). However, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. The October 28, 2020 DOE submittal to EPA, titled "NPDES Permit No. NM0028355 Monthly Discharge Monitoring Reports (DMRs) for September 2020, Quarterly DMRs for July 2020 – September 2020, Yearly DMRs for October 2019 – September 2020, and Term DMRs for October 2014 – September 2020," states "No Discharge October 2014 – September 2020," "No discharge to Cañada del Buey," and "No Discharge to Outfall During Monitoring Period." EPC-DO: 20-346, LA-UR 20-28634.

2. Outfall 03A027: This outfall is said to be "capable of receiving SCC Cooling Tower blowdown discharges." (Supp. 20). Again, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE also reported [No Data Indicator Code] NODI=C, meaning there was no discharge from the outfall. The monthly and quarterly DMRs report "The Outfall Pipe capped on 9/9/2016. No Discharge During Monitoring Period." The yearly DMR states, "No Discharge to Outfall 027 this monitoring period." Id.

3. Outfall 03A113: The supplemental comments state that the outfall discharged certain amounts in 2017 through 2020, but adds: "Cooling Tower TA-53-293 is in operational standby and is no longer discharging to the outfall, but the permit application proposes this as a future discharge

source to the outfall." (Supp. 21 – 22). Once again, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall.

4. Outfall 03A160: The supplemental comments state: "The 2019 NPDES Permit Re-Application proposed discharges to that outfall based upon historical data and the use of the outfall as an operational backup." (Supp. 22). Thus, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE reported, "No Discharge During Monitoring Period," on the monthly, quarterly and yearly DMRs. Id.

5. Outfall 05A055: DOE states in its supplemental comments: "The outfall provides operational flexibility for maintenance, repair, and replacement of equipment (i.e., evaporator), and serves as a critical backup should LANL be unable to evaporate effluent." (Supp. 23). Thus, no discharge is claimed to be ongoing or proposed. 40 C.F.R. § 122.21(a). There is no legal basis for a permit for this outfall. DOE reported, "No Discharge During Monitoring Period," on the monthly, quarterly and yearly DMRs. Id.

18. DOE also urges that the statutory limits enforced in Waterkeeper and National Pork must be ignored if the permit applicant requested the permit. (Supp. 5). DOE contends that Waterkeeper and National Pork say nothing about issuance of a NPDES permit to a person who "voluntarily" requests one. (Supp. 5 – 6). That issue was not presented in those cases, because there a NPDES permit was not desired for its exemptive powers; here, it is.

19. But the CWA does not authorize a permit that is "requested" as distinguished from a permit for a "discharge." The statutory limitation to a discharge is a jurisdictional requirement. Waterkeeper, 399 F.3d at 505. If DOE's theory is correct—that EPA may issue a NPDES permit to an entity that does not discharge nor propose to discharge, so long as the person requests a permit—then there would be no limitation on EPA's power to issue a permit. (Supp. 5-6). Such a situation would violate the principle that Congress may not delegate legislative authority:

> [I]n Mistretta v. United States, 488 U.S. 361 (1989), we revisited the nondelegation doctrine and reaffirmed our longstanding principle that so long as Congress provides an administrative agency with standards guiding its actions such that a court could "ascertain whether the will of Congress has been obeyed," no delegation of legislative authority trenching on the principle of separation of powers has occurred. Id., at 379, quoting Yakus v. United States, 321 U.S. 414, 426 (1944). See American Power & Light Co. v. SEC, supra, at 105 (It is "constitutionally sufficient if Congress clearly delineates the general policy, the public agency which is to apply it, and the boundaries of this delegated authority. Private rights are protected by access to the courts to test the application of the policy in the light of these legislative declarations").

Skinner v. Mid-America Pipeline Co., 490 U.S. 212, 218-19 (1989). Here, Congress delegated to EPA the authority to issue a permit only for a "discharge," not for a possible future discharge that is not planned or expected but only imagined, and certainly not for a person who simply requests a permit for its own convenience. If Congress had authorized EPA to issue a permit on

request, a serious question of unconstitutional delegation of authority without standards or policy direction would be presented.

20. Moreover, the concept of a "voluntary" request for a permit cannot stand scrutiny. All permits are requested "voluntarily" in response to an applicant's needs and the prevailing legal provisions. To seek indicia of "voluntariness" in order to uphold an unauthorized permit is a fool's errand and would only encourage the fabrication of permitting history. Once the NPDES permit process begins, the regulatory structure is entirely mandatory. See, e.g., 40 C.F.R. § 122.21(f), (g). The idea that EPA can disregard the statutory limits when an entity "requests" a sought-after permit not only would nullify the CWA's jurisdictional limits but also would introduce profound mischief, e.g., by authorizing EPA to hand out unnecessary CWA permits to non-discharging entities, which permits would carry an exemption from hazardous waste regulation. This malign concept has no source in the law Congress enacted.

21. DOE asserts that the possible need for an immediate discharge supports issuance of a permit "just in case" of an emergency. (Supp. 4). This argument simply ignores the statutory limitation that requires a "discharge." Moreover, here such a need is imaginary. When the RLWTF was reconstructed for zero-liquid-discharge, indoor storage tanks sufficient to hold 300,000 gallons of effluent were installed. RLWTF Closure Plan, DP-1132 (July 2016) at 15 (AR0001597) and Appendix A, Table 7 at 50 (AR0001632). Even if both evaporation systems were somehow inoperative, the RLWTF has storage capacity in the solar evaporation tanks sufficient to hold more than seven months of output. Petition to EAB, Ex. 1 (AR0000198) (solar evaporation tank capacity is 754,036 gallons); see also Petition to EAB, Ex. 2 (AR0000204) (in 2009 RLWTF discharged 4,401,900 liters or 1,162,859 gallons). Talk of an emergency that compels a sudden discharge is simply a fantasy.

22. Moreover, EPA in construing the CWA must consider the impact of its permitting action upon RCRA coverage. DOE argues (Supp. 16) that a CWA permit for Outfall 051 will confer upon the RLWTF an exemption from RCRA regulation under the Wastewater treatment unit exemption. Such is DOE's evident motive in seeking a permit; thus, DOE seeks to set up a conflict between CWA and RCRA regulation. But EPA is charged with application of both CWA and RCRA. 33 U.S.C. § 1251(d); 42 U.S.C. § 6921. EPA has no authority to "pick and choose" the federal law that it will apply and, instead, must seek to give effect to both. Epic Sys. Corp. v. Lewis, 138 S. Ct. 1612, 1624 (2018); Morton v. Mancari, 417 U.S. 535, 551 (1974). EPA must consider the impact of a CWA permit on RCRA enforcement. DOE asks EPA to adopt an incorrect construction of the CWA requirement of a "discharge" that renders both statutes ineffective: The CWA permit would regulate nothing, because there is no discharge, but, by DOE's reading, it would block the RCRA process, thwarting RCRA's preventive purposes. To the contrary, where the CWA has no role to play, EPA should not uselessly expand the supposed jurisdiction of the CWA to bar RCRA from protecting human health and the environment.

23. Citizens do not agree that the Wastewater treatment unit exemption properly should apply to the RLWTF, as DOE contends (Supp. 16), even if a CWA permit were issued for Outfall 051. At present, substantially all of the wastewater from the RLWTF is disposed of by evaporation. The evaporation equipment— both the existing mechanical evaporator and the constructed, but not yet operational, solar evaporation tanks—is entirely unregulated, and it would not be regulated in the renewal permit. In contrast, under RCRA, all such equipment would be regulated under a permit. Moreover, contrary to DOE's argument, EPA has issued its opinion letter, discussed below, stating that a facility like the RLWTF is not an exempt Wastewater treatment unit.

24. Specifically, a "Wastewater treatment unit" is defined in 40 C.F.R. § 260.10:

> Wastewater treatment unit means a device which:
> (1) Is part of a wastewater treatment facility that is subject to regulation under either section 402 or 307(b) of the Clean Water Act; and
> (2) Receives and treats or stores an influent wastewater that is a hazardous waste as defined in § 261.3 of this chapter, . . . and
> (3) Meets the definition of tank or tank system in § 260.10 of this chapter.
>
> EPA explained in issuing the rule in 1988 that the exemption applies to a tank system that is part of a facility that is subject to CWA Section 302 regulation, but does not apply when the tank system is also used for a different purpose:
> [A]ny hazardous waste tank system that is used to store or treat the wastewater that is managed at an on-site wastewater treatment facility with a National Pollution Discharge Elimination System (NPDES) permit . . . . is exempt from the RCRA regulations.
> * * *
> EPA intends that this exemption apply to any tank system that manages hazardous wastewater and is dedicated for use with an on- site wastewater treatment facility. However, if a tank system, in addition to being used in conjunction with an on-site wastewater treatment facility, is used on a routine or occasional basis to store or treat a hazardous wastewater prior to shipment off-site for treatment, storage, or disposal, it is not covered by this exemption.

53 Fed. Reg. 34079, 34080 (Sept. 2, 1988).

25. In 1998, EPA issued an Agency opinion letter concerning a tank system that was used for wastewater treatment in certain months, and used for other purposes for the remainder of the year—just as the RLWTF is used to dispose of wastewater by evaporation, in addition to potentially using the CWA- permitted outfall. EPA stated that the Wastewater treatment unit exemption does not apply to such a tank system:

> You ask what EPA meant by the language "dedicated" [for use with an on-site wastewater treatment facility] and offer two possible interpretations. One interpretation, you suggest, is that the WWTU must be dedicated solely for wastewater treatment at all times. A second

> interpretation, you suggest, is an "alternating use" scenario in which a WWTU may operate as a WWTU for a portion of the year, dedicated for wastewater treatment for that period of time in use, and then operate as an accumulation tank for a different part of the year. The Agency confirms the first interpretation, described above. That is, in order to satisfy the WWTU exemption, a tank must be dedicated solely for on-site wastewater treatment at all times and for no other purpose. EPA believes that the preamble language is clear on this point. EPA did not intend the WWTU exemption to apply in situations involving "dual use" of a tank (when a tank is concurrently used for wastewater treatment and for another purpose). Nor did EPA intend for the exemption to apply in situations, such as the one your letter describes, involving "alternating use" of the tank.

Letter, E.A. Cosworth, OSW, to Susan Pendleton, ERM New England, Inc., RO 14262. Reflecting this interpretation, section 4.6 of the current Hazardous Waste Act ("HWA") permit for LANL states that the Wastewater treatment unit exemption shall apply to the RLWTF only if all wastewater is discharged through the NPDES-regulated Outfall 051 or as authorized by that NPDES permit:

> The Permittees shall discharge all treated wastewater from the TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF) through the outfall permitted under Section 402 of the federal Clean Water Act, or as otherwise authorized by the terms of an applicable Clean Water Act permit that regulates the treatment and use of wastewater. If the Permittees intentionally discharge through a location other than the permitted outfall or as otherwise authorized, they will fail to comply with this requirement, and as a consequence the wastewater treatment unit exemption under 40 CFR § 264.1(g)(6) will no longer apply to the RLWTF. https://www.env.nm.gov/hazardous-waste/lanl-permit/

Since most of the RLWTF's wastewater is disposed of not through Outfall 051 nor pursuant to the NPDES permit, but by evaporation, the exemption does not apply.

26. DOE tells the Agency that the RLWTF is entitled to the Wastewater treatment unit exemption based upon a 1992 EPA opinion letter by S.K Lowrance to T.W. Cervino. (Supp. 15-16). The letter claims exemption of "facilities which are permitted, were ever permitted, or should have been permitted under NPDES," and DOE asserts that such wording means that the RLWTF, which now has a NPDES permit for Outfall 051, is entitled to an exemption, because it was permitted—i.e., "ever." So stating, DOE seeks to stretch the Agency's statements to meet the RLWTF. Certainly, the RLWTF has historically been permitted. But neither the CWA nor its regulations authorize a perpetual permit. In 1998 LANL adopted the "zero-liquid-discharge" program, and the facility was changed and rebuilt; evaporation equipment was installed, and discharges effectively stopped. The fact that a facility was once permitted under the NPDES but was then changed to eliminate discharges, and so is not the same facility, does not support a new NPDES permit.

27. DOE elaborates upon its theory that EPA's stormwater regulation program somehow proves that EPA may issue a NPDES permit for a non-discharging facility. DOE states that the stormwater program regulates "episodic" discharges. (Supp. 8 – 9). "Episodic" discharges occur at intervals, and the intervals may be unpredictable. But the point is: there will be actual stormwater discharges in the future, because there will be precipitation, although the weather dictates the timing. The stormwater program addresses the discharges attributable to such precipitation, which are significant. EPA in 1990 offered an assessment of the nature of the stormwater problem:

> The Assessment concluded that pollution from diffuse sources, such as runoff from agricultural, urban areas, construction sites, land disposal and resource extraction, is cited by the States as the leading cause of water quality impairment. These sources appear to be increasingly important contributors of use impairment as discharges of industrial process wastewaters and municipal sewage plants come under increased control and as intensified data collection efforts provide additional information.

EPA, NPDES Permit Application Regulations for Storm Water Discharges, 55 Fed. Reg. 47990, Background and Water Quality Concerns (Nov. 16, 1990). The stormwater program clearly deals with massive discharges of contaminated waters. A very different question is presented by the current permit proposal: Whether a permit may issue where there is no discharge and no plan to discharge at all. The stormwater program offers no guidance on that question.

CONCLUSION

It is not for EPA to break through the jurisdictional limits of the CWA to issue a permit that blocks the application of federal hazardous waste laws to a facility that admittedly treats and stores hazardous waste, and is required under RCRA to adhere to stringent regulations in the handling of such dangerous substances. The CWA permit for outfalls that have no plan to discharge has no legal basis and should be denied.

Respectfully submitted,

EPA Response: This comment is largely in response to comments submitted by other commenters, which EPA has responded to elsewhere in these responses to comments.

EPA considered communities that may be affected by this discharge during the public notice period. For example, EPA: offered Tribal Consultation to Tribes adjacent to LANL, extended the comment period for one year, translated Public Notice document to Spanish and offered a Public Meeting and Hearing to the community.

Section 402(a)(1) of the CWA allows EPA to issue "a permit for the discharge of any pollutant." 33 U.S.C. § 1342(a)(1). The CWA draws no distinction between actual and potential discharges and does not limit EPA's authority on that basis. Further, EPA's authority to issue permits for potential or future

discharges is evident in the structure of the CWA's NPDES permitting program. Under the CWA, it is generally illegal to discharge without a permit. See CWA §§ 301(a) and 402(a), 33 U.S.C. §§ 1313 (a) and 1342 (a). Therefore, to comply with the Act, facilities must have a permit in place before they discharge, which necessarily means that EPA must issue permits for discharges that are not yet actual. In addition, the CWA imposes stiff penalties for discharging without a permit. See CWA § 309, 33 U.S.C. § 1319. This encourages facilities to obtain permits even if there is only a remote chance of discharge. EPA's ability under the CWA to issue permits to cover potential discharges serves the Act's goal of protecting the Nation's waters. "The touchstone of the regulatory scheme is that those needing to use the waters for waste distribution must seek and obtain a permit to discharge that waste, with the quantity and quality of the discharge regulated." United States v. Earth Sciences, Inc., 599 F.2d 368, 373 (10th Cir. 1979).

LANL sought permit coverage for the five facilities referenced in this comment because the facilities have discharged or have the potential to discharge. EPA's issuance of permit coverage for these facilities is in accordance with EPA's statutory authority and the CWA's stated goal, even if the potential for discharge from these facilities is remote/and or the discharge may be infrequent and/or irregular.

In Discharge Monitoring Reports (DMRs), LANL reported to EPA that there have been recent discharges from several of these facilities. On June 18, 2019, LANL discharged wastewater from the Radioactive Liquid Waste Treatment Facility (RLWTF) through Outfall 051. LANL informed EPA that it did so because its solar evaporators were unavailable. LANL discharged from Outfall 051 on March 18, 2020, and informed EPA that it did so due to influent volumes. LANL again discharged from Outfall 051 on August 18, 2020, and informed EPA that it did so because the mechanical evaporator was down for maintenance. In public comments on this permit modification, captured below, LANL notes a change to facility operations such that Outfall 051 will be "an integral component of its operations, rather than solely as a backup, and discharges from the outfall are expected to be more routine and frequent in the future."

DMRs also show discharges from other the other facilities. The Strategic Computing Complex (SCC) discharges monthly from Outfall 001. Los Alamos Neutron Science Complex (LANSCE) discharges monthly from Outfall 03A048. The National High Magnetic Field Laboratory discharged in May 2018 from Outfall 03A160

EPA's authority to issue NPDES permit authorization at the request of an applicant for a potential future discharge is not precluded under federal court holdings in *National Pork Producers Council v. EPA*, 635 F.3d 738 (5th Cir. 2011)("*National Pork Producers*") and *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2d Cir. 2005)("*Waterkeeper*"). In each of these cases, the reviewing court examined EPA's authority to *require* operators of Concentrated Animal Feeding Operations (CAFOs) to apply for NPDES permit authorization when there had been no evidence of an actual discharge nor a request for authorization by the would-be permittee. In *Waterkeeper*, the Second Circuit found that EPA had exceeded its statutory authority by requiring all CAFOS to apply for an NPDES permit whether or not they actually discharged. The *Waterkeepe*r court found that the CWA, "on its face, prevents the EPA

from imposing, upon CAFOs, the obligation to seek an NPDES permit or otherwise demonstrate that they have no potential to discharge." *Waterkeeper* at 486. Likewise, in *National Pork Producers*, the Fifth Circuit found that EPA could not mandate permit applications in cases where there was no actual discharge. The agency could require discharging CAFOs to obtain NPDES permits. *National Pork Producers* at 755-756.

Both *National Pork Producers* and *Waterkeeper* place the burden on the CAFO owner and/or operator to determine whether to seek permit authorization or to risk liability in case of a discharge. Neither case addresses EPA's authority to issue a permit to a facility operator voluntarily *requesting* authorization for a recognized possible or potential discharge. If a facility voluntarily seeks permit authorization for a possible or potential discharge of pollutants, CWA section 402(a) provides authority for EPA to issue a permit authorizing that possible or potential future discharge. In this instance, the permittees specifically sought permit authorization for discharges that may occur, albeit infrequently or irregularly.

The 2003 CAFO rule required all CAFOs to apply for a permit unless they had received a determination by the permitting agency that the facility had "no potential to discharge." This "duty to apply" provision was based on the presumption that every CAFO has a potential to discharge and therefore must seek coverage under an NPDES permit. 68 FR 7176 at 7202 (February 12, 2003).

The Commentor also expressed concern that LANL is attempting to circumvent the requirements of the Resource Conservation and Recovery Act (RCRA) by seeking NPDES coverage for these five (5) facilities. LANL's compliance with RCRA is outside the scope of this NPDES permitting action. The commenter cites EPA guidance, RO 14262, which addresses the availability of the wastewater treatment exemption at 40 CFR 264.1(g)(6) for "dual use" tanks. EPA has received no information indicating any "dual use" tank (meaning a tank used for both treatment and some other purpose such as accumulation) discharges to Outfall 051.

EXHIBIT N

Los Alamos
NATIONAL LABORATORY

Environmental Protection & Compliance Division
Compliance Programs Group

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Symbol: EPC-DO: 21-075
LAUR: 21-21894
Locates: NA
Date: FEB 25 2021

Ms. Nancy Williams
U.S. Environmental Protection Agency, Region 6
Compliance Assurance and Enforcement Division
Water Enforcement Branch (6EN)
1201 Elm Street, Suite 500
Dallas, TX 75270

Subject: NPDES Permit No. NM0028355 Notice of Planned Change for the Radioactive Liquid Waste Treatment Facility (RLWTF) Outfall 051

Dear Mr. Weis:

The National Pollutant Discharge Elimination System (NPDES) Permit No. NM0028355 for the Nuclear Security Administration (NNSA) and Triad National Security, LLC (Triad) requires the permittee(s) to notify the U. S. Environmental Protection Agency (EPA) of any physical alterations or additions to a permitted facility that could significantly change the nature or increase the quantity of pollutants discharged (see Part III.D.1.a. Report Requirements).

This notice of planned change provides information regarding the following changes at the RLWTF:

1. Updated Table 4 of the Fact Sheet for Outfall 051 with flow rates and volumes based upon actual data from the discharges to Outfall 051 in June 2019, March 2020, and August 2020 previously provided with the Triad comments on October 26, 2020. Attachment 1 provides a red line of the Fact Sheet. This change **will not** increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

2. Updated Section 5.0 of the Fact Sheet for Outfall 051 to include the analytical data from the discharges to Outfall 051 in June 2019, March 2020, and August 2020 previously provided with the Triad comments on October 26, 2020. Attachment 1 provides a red line of the Fact Sheet. This change **will not** increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

3. Updated Table 3 of the Fact Sheet for Outfall 051 to add four new chemicals to the treatment process at the RLWTF. The chemicals include sodium bicarbonate, calcium carbonate, magnesium chloride, and calcium chloride will be added each effluent tank prior to its discharge to Outfall 051. The addition of these chemicals will raise the pH, alkalinity, and hardness to improve effluent quality prior to discharge. Attachment 1 provides a red line of the Fact Sheet. Attachment 2 provides Safety Data Sheets (SDS) for each chemical. This change **will not** increase the quantity of pollutants in effluent or the volume discharged to the outfall.

4. Updated Table 3 of the Fact Sheet for Outfall 051 to add sodium hypochlorite to the treatment process at the RLWTF. Sodium hypochlorite will be used to clean and/or disinfect the reverse

osmosis unit(s). Attachment 1 provides a red line of the Fact Sheet. Attachment 2 provides Safety Data Sheets (SDS). This change **will not** increase the quantity of pollutants in effluent or the volume discharged to the outfall.

5. Piping modification to improve the effluent discharge line to Outfall 051. The modification will remove the flexible hose effluent line that currently connects to the outfall discharge line and replace it with hard pipe routed through an underground trench box to the outfall discharge line. Attachment 3 provides drawings that show the existing flexible hose and the new piping and trench box. This change **will not** increase the quantity of pollutants in the effluent or the volume discharged to the outfall.

The NNSA/DOE and Triad respectfully submit the contents of this notice of change in accordance with the existing NPDES Permit NM0028355 and request that the information be included in the record in accordance with the provisions identified in the Public Notice: Los Alamos National Laboratory (LANL) Limited Reopening of the Public Comment Period for NPDES Permit No. NM0028355. If you need additional information or have questions, please contact Karen Armijo, DOE/NNSA, at 505-665-7314 or Jennifer Griffin, Triad, at 505-667-6741.

Sincerely,

TAUNIA VAN VALKENBURG (Affiliate)

Digitally signed by TAUNIA VAN VALKENBURG (Affiliate)
Date: 2021.02.25 15:32:53 -07'00'

Taunia Van Valkenburg
Environmental Protection and Compliance Division - Compliance Programs
Group Leader

Attachment(s): Attachment 1 NPDES-FS-18-010-R.2, Outfall 051 Fact Sheet [February 2021]
Attachment 2 Safety Data Sheets for Additional Treatment Chemicals
Attachment 3 Drawings for Improved Piping Modification to Route Aboveground Portion of Effluent Discharge Line into a Trench Box

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ATTACHMENT 1

NPDES-FS-18-010-R.2, Outfall Fact Sheet [February 2021]

EPC-DO: 21-075

LA-UR-21-21894

Date: FEB 25 2021

Industrial and Sanitary Outfalls 2019 NPDES Permit Re-Application Outfall 051 Fact Sheet

TA-55 Facility Operations
TA-50 Radioactive Liquid Waste Treatment Facility (RLWTF)

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Revision Log

Revision No.	Date	Page Nos.	Change Description
0	3/19/2019	NA	Original
1	7/31/2019	Page 6, Table 3	Deleted the concentration percentage for sodium hydroxide in Table 3. Deleted WEST W-126 from the table.
		Page 8, Table 5	Deleted 2-propanoic acid from the table because it was only associated with WEST W-126. WEST W-126 was the only chemical that included 2-propanoic acid.
		Page 8, Table 5	Revised Table 5 to include those chemicals identified on approved Waste Stream Profiles (WSPs) only. The previous table included all WSPs including those pending approval. Many of the ~~the~~ WSPs that were pending approval were canceled or otherwise not approved due to non-compliance with the Waste Acceptance Criteria for the RWLTF.
		Attachment D, page D-72	Replaced the MSDS for Caustic Soda/Sodium Hydroxide with a current SDS
		Attachment D, page D-95	Deleted the MSDS for WEST W-126. This chemical is no longer in use at the RLWTF.
2	2/22/21	Section 2.2. Page 5 and 6	Corrected the process description to make it easier to understand.
		-Table 3, Page 6	Added 5 chemicals to the table. Four of the chemicals are used to adjust hardness and alkalinity of the effluent prior to discharge. The fifth chemical is used to clean/disinfect equipment.
		-Table 4, Page 7	Updated the table with flow data from discharges performed in June 2019, March 2020, and August 2020. This data was submitted to EPA with the Triad Comments on October 26, 2020.
		Section 5.1, Page 7	Added statements regarding the use of analytical data from discharges performed in June 2019, March 2020, and August 2020. This data was submitted to EPA with the Triad Comments on October 26, 2020.

INDUSTRIAL AND SANITARY OUTFALLS 2019 NPDES PERMIT RE-APPLICATION OUTFALL 051 FACT SHEET

1.0 OUTFALL LOCATION [Section I]

Outfall ID No.:	051	**Outfall Location:**	TA-50
Category:	Radioactive Liquid Waste Discharge	**Originating Structure for the Discharge:**	TA-50-1
Flow Type:	Intermittent (batch)	**Receiving Stream:**	Effluent Canyon, Tributary to Mortandad Canyon, Water Quality Segment 20.6.4.128 NMAC
Longitude:	106° 17' 54" W	**Latitude:**	35° 51' 54" N

2.0 FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES [Section II]

Outfall 051 is located at TA-50 and discharges to Effluent Canyon which is a tributary to Mortandad Canyon in Water Quality Segment 20.6.4.128 NMAC. The outfall discharges treated radioactive liquid waste effluent from that originates at TA-50-1. Attachment A provides a location map. The discharge is comprised of treated effluent from the Radioactive Liquid Waste Treatment Facility (RLWTF). Table 1 identifies the discharge source, the source location, and source composition.

Table 1
Sources for Discharges to Outfall 051

TA	Buildings	Types	Transportation Mode (Piping, Truck etc.)	Discharge Source Description	Source Composition
50	1, 66, 230, 248, 250, 257, 261	Process Cooling Storm Water	Piping, Truck	Radioactive Liquid Waste Treatment Facility (RLWTF)	Treated effluent from the RLWTF.
52	181, 183				

2.1 Process Schematic and Water Balance [II.A]

A process schematic line drawing that shows the route taken by water from intake to the discharge at Outfall 051 is provided in Attachment B. This drawing includes all operations that contribute process water to the discharge at the outfall. A water balance is also provided on the process schematic with average flows. The water balance is based upon actual data collected from operations personnel.

2.2 Water Treatment Processes [II.B]

The RLWTF receives and treats radioactive liquid waste (RLW) process, cooling, and/or storm water from various generator facilities located throughout the Los Alamos National Laboratory (LANL). All wastewater that is discharged to the facility must comply with the facility's Waste Acceptance Criteria and must have a completed and approved Waste Stream Profile Form prior to its discharge. The RLWTF consists of (a) an underground collection system (double walled piping and vaults) that conveys water to Technical Area (TA) 50 from generators at LANL; (b) structures located at TA-50 that house treatment operations and the mechanical evaporator system (MES) located at TA-50-257; and (c) Solar Evaporation Tanks (SET) located at TA-52-181 and 183. The RLWTF treatment operations are centralized at TA-50-1, which houses the treatment equipment, process tanks, analytical laboratories, and offices. Structures adjacent to TA-50-1 provide low level waste (LLW) influent and emergency storage (TA-50-250), transuranic (TRU) influent storage (TA-50-66), secondary waste storage (TA-50-248), and mechanical evaporation (TA-50-257). The treatment operations are divided into the following:

- **Main LLW Treatment Process:** Consists of LLW influent collection, LLW influent storage, LLW treatment, and discharge of treated effluent water to the environment. The treatment process includes the addition of chemicals to the influent in reaction tanks, filtration, ion exchange, and reverse osmosis (RO). Treated effluent may be discharged to the NPDES Outfall 051, the SET located at TA-52, or the mechanical evaporation system (MES) located at TA-50-257. The main LLW treatment process generates solids/sludge and RO concentrate that is routed to the secondary treatment process.

- **TRU Treatment Process:** Consists of influent collection, influent storage, TRU treatment, ~~and~~ sludge concentration, and sludge solidification. The treatment process includes addition of chemicals and filtration. The

treated effluent ~~water from the TRU treatment process~~ is ~~not~~ discharged to the LLW influent tanks or directly to the LLW treatment process. ~~to the environment. Treated effluent water either receives additional treatment in the Secondary RO or it is sent to the bottoms storage tanks located at TA-50-248~~. Sludge from the TRU treatment process is concentrated, solidified with cement in a drum tumbler, and shipped to the Waste Isolation Pilot Plant as a solid TRU waste for disposal.

- **Secondary Treatment Process**: Consists of a rotary vacuum filter to treat sludge from the main LLW treatment process, a secondary RO, ~~to treat RO concentration from the main LLW treatment process and/or effluent from the TRU treatment process,~~ and bottoms storage tanks located at TA-50-248 ~~for RO concentrate~~. Treated water is either stored as bottoms or routed back to the main LLW reaction tanks. Sludge from the rotary vacuum filter is drummed and shipped offsite for disposal as LLW radioactive solid waste. Bottoms from the storage tanks are shipped offsite in tanker trucks for disposal as LLW radioactive solid waste.

Table 2 identifies the wastewater treatment codes associated with the RLWTF. Attachment B provides a schematic of the buildings and vaults associated with the influent collection system. The vaults are monitored by radio signal and/or process logic controller at the facility to ensure that there are no leaks into the double walled piping. Photographs are provided in Attachment C.

Table 2
Wastewater Treatment Codes Assigned to Outfall 051

Treatment Code	Description	Justification
1F	Evaporation	Mechanical Evaporator (MES) and Solar Evaporation Tanks (SET)
1O	Mixing	Various Storage and Reaction Tanks
1S	Reverse Osmosis (RO) (Hyperfiltration)	Primary RO Unit
1U	Sedimentation (Settling)	Sludge
2C	Chemical Precipitation	Chemical precipitation of radionuclides in reaction tanks.
2J	Ion Exchange	Removal of Perchlorate using ion exchange.
2K	Neutralization	Influent and Room 60 Neutralization
5Q	Landfill	Drums of TRU Waste
5R	Pressure Filtration	Pressure Filter
5U	Vacuum Filtration	Rotary Vacuum filter for low level waste sludge

The water treatment processes identified in Table 2 utilize chemicals to promote precipitation, adjust pH, clean membranes, and/or otherwise treat the radioactive liquid wastewater. Table 3 provides a list of the chemicals used at the RLWTF.

Table 3
List of Treatment Chemicals used in the Operations that Contribute to Outfall 051

Source	Chemical Name	Reason for Use	Toxic Pollutant and/or Hazardous Substances Table 2C-3 or 2C-4	
Radioactive Liquid Waste Treatment Facility	EDTA	Membrane Cleaning	EDTA	2C-4
	Ferric Sulfate	Promote Precipitation/Flocculation	Ferric Sulfate Sulfuric Acid	2C-4
	Hydrochloric Acid	Membrane Cleaning	Hydrochloric acid	2C-4
	Magnesium Hydroxide	Promote Precipitation/Flocculation	NA	NA
	Magnesium Sulfate	Precipitation/Flocculation	NA	NA
	SIR-110	Ion Exchange Resin	NA	NA
	Sodium Bisulfite	Membrane Cleaning	Sodium Bisulfite	2C-4
	Sodium Hydroxide	Raising pH, Promote Precipitation, Flocculation, and Membrane Cleaning	Sodium Hydroxide	2C-4
	Sulfuric Acid	pH Adjustment	Sulfuric acid	2C-4
	Sodium bicarbonate	Alkalinity Adjustment	NA	NA
	Calcium carbonate	Hardness Adjustment	NA	NA
	Magnesium chloride	Hardness Adjustment	NA	NA
	Calcium Chloride	Hardness Adjustment	NA	NA

Table 3 List of Treatment Chemicals used in the Operations that Contribute to Outfall 051				
Source	Chemical Name	Reason for Use	Toxic Pollutant and/or Hazardous Substances Table 2C-3 or 2C-4	
	Sodium Hypochlorite	Clean/Disinfect	Sodium Hypochlorite	2C-4
	Bright Dyes FLT Yellow-Green Liquid	Water Line and Drain Tracing Dye	NA	NA
	Bright Dyes FLT Yellow-Green Tablet	Water Line and Drain Tracing Dye	NA	NA

EDTA = Ethylene Diamine Tetraacetic Acid

2.3 Discharge Rate and Frequency [II.C]

The discharge rates and frequencies for Outfall 051 are provided in Table 4.

Table 4 Discharge Rates and Frequencies for Outfall 051							
Source [a]	Frequency		Flow Rates and Volumes				
	Days/Week	Months	Average (MGD)	Maximum (MGD)	Average Volume (GPD)	Maximum Volume (GPD)	Duration (days)
Radioactive Liquid Waste Treatment Facility	4	12	~~0.020~~0.0159	~~0.040~~0.0213	~~20,000~~15,936	~~39,840~~21,345	208

a. ~~Estimated based on the operating parameters of the Effluent Storage Tanks.~~Calculated based upon discharges in June 2019, March 2020, and August 2020.

GPD = gallons per day; MGD = million gallons per day

3.0 PRODUCTION [Section III]

Section III is not applicable to Outfall 051.

4.0 IMPROVEMENTS [Section IV]

Future improvements to the treatment processes at the RLWTF includes the startup of a newly constructed main low-level waste treatment facility located at TA-50-230 and 261. The new facility utilizes the same treatment/process technologies as the existing facility described in Section 2.2 (e.g., neutralization, reverse osmosis) and is expected to complete startup testing in 2019 with an estimated operational start date in2023. A Notice of Change will be submitted for this change prior to the start of operations and impact to the outfall. The startup of the new facility is not expected to impact the outfall location, flowrates, and discharge frequency provided in Table 4. A red lined schematic and a process flow diagram for the new facility are provided in Attachment D.

5.0 INTAKE AND EFFLUENT CHARACTERISTICS [Section V]

5.1 Analytical Data [V.A, B, and C]

The analytical results provided for the Outfall 051 Permit Reapplication on the Form 2C were provided from the following sources:

- Operational s~~S~~amples collected on September 26, 2018 and shipped to an independent laboratory for analysis.
- Field samples collected and analyzed on August 26, 2018 for temperature, residual chlorine, and pH.
- Field samples collected and analyzed on February 5, 2019 for sulfite.
- Compliance samples collected from discharges to Outfall 051 on June 18, 2019, March 10, 2020, and August 18, 2020.
- Hardness (long term average) = ~~17.3~~75.2 mg/L ($CaCO_3$)

Revision 0 of the Fact Sheet did not includes a~~A~~ discharge monitoring report summary ~~is not provided for Outfall 051 because the effluent form the RLWTF was not discharged to Effluent Canyon between October 2014 and September 2018. Effluent from the RLWTF was routed to the MES.~~ because there were no effluent discharges to the outfall prior to the submittal of the permit application in March 2019. Discharge monitoring and reporting was performed for discharges to Outfall 051 on June 18, 2019, March 10, 2020, and August 18, 2020. A discharge monitoring summary and Form 2C Crosswalk was submitted as Enclosure 5 of EPC-DO-20-096, Triad Comments on the Draft Industrial and Sanitary Wastewater NPDES Permit No. NM0028355 Published for Public Comment on November 30, 2019 that was submitted on October 26, 2020.

5.2 Potential Pollutants [V.D]

The treatment chemicals associated with the RLWTF and the content of the wastewaters treated by the RLWTF constitute the pollutant load of the discharge to Outfall 051. Table 5 identifies the Table 2C-3 and 2C-4 pollutants by discharge source. It also identifies those pollutants (if any) that were detected in the analytical results from the samples collected for the 2019 Permit Application.

Table 5
Potential Pollutants by Source for Outfall 051

Source Description	POTENTIAL Toxic Pollutant and/or Hazardous Substances Table 2C-3 or 2C-4		Analytical Data Results from Operational Samples Collected for Outfall 051 [a]
Effluent from the Radioactive Liquid Waste Treatment Facility (RLWTF) - Chemicals used during treatment at the RLWTF.	EDTA	2C-4	pH = 6.1 – 8.9 S.U.
	Ferric Sulfate	2C-4	Iron = 46.4 ug/L, Sulfate = 54.3 mg/L
	Sulfuric Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Hydrochloric Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Sodium Bisulfite	2C-4	Sulfite was not detected.
	Sodium Hydroxide	2C-4	pH = 6.1 – 8.9 S.U.
Effluent from the RLWTF - Chemicals identified on approved waste stream profile forms associated with the wastewaters discharged to the RLWTF for treatment.	Acetic Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Acetone [b]	2C-4	Not analyzed. [c]
	Acrolein	2C-4	Not detected.
	Ammonia	2C-4	Ammonia = 1.17 mg/L
	Ammonium Acetate	2C-4	Ammonia = 1.17 mg/L
	Ammonium Biflouride	2C-4	Ammonia = 1.17 mg/L Fluoride = 0.198 mg/L
	Ammonium Hydroxide	2C-4	Ammonia = 1.17 mg/L
	Ammonium Thiocyanate	2C-4	Ammonia = 1.17 mg/L
	Benzene [b]	2C-4	Not detected.
	Benzoic Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Calcium Chloride	2C-4	Residual Chlorine < 0.5 mg/L
	Carbon Disulfide [b]	2C-3 & 2C-4	Not analyzed. [c]
	Chlorine	2C-4	Residual Chlorine <0.5 mg/L
	Chlorobenzene [b]	2C-4	Not detected.
	Dichlorobenzene	2C-4	Not detected.
	Dichloropropene	2C-4	Not detected.
	EDTA	2C-4	pH = 6.1 – 8.9 S.U.
	Ethylbenzene	2C-4	Not detected.
	Ferric Chloride	2C-4	Residual Chlorine < 0.5 mg/L
	Ferric Sulfate	2C-4	
	Formic Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Hydrochloric Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Hydrofluoric Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Naphthalene	2C-4	Not detected
	Nitric Acid	2C-4	pH = 6.1 – 8.9 S.U. Nitrate = 7.63 mg/L
	Phosphoric Acid	2C-4	pH = 6.1 – 8.9 S.U. Total Phosphorus was not detected

Table 5 Potential Pollutants by Source for Outfall 051			
Source Description	**POTENTIAL Toxic Pollutant and/or Hazardous Substances Table 2C-3 or 2C-4**		**Analytical Data Results from Operational Samples Collected for Outfall 051 [a]**
	Potassium Hydroxide	2C-4	pH = 6.1 – 8.9 S.U.
	Sodium	2C-4	Not analyzed. [c]
	Sodium Fluoride	2C-4	Fluoride = 0.198 mg/L
	Sodium Hydroxide	2C-4	pH = 6.1 – 8.9 S.U.
	Sodium Hypochlorite	2C-4	Residual Chlorine < 0.5 mg/L
	Sodium Nitrite	2C-4	Nitrate = 7.63 mg/L
	Sodium Phosphate	2C-4	Total Phosphorus was not detected.
	Strontium	2C-3	Not analyzed. [c]
	Sulfuric Acid	2C-4	pH = 6.1 – 8.9 S.U.
	Toluene [b]	2C-4	Not detected.
	Trichloroethylene [b]	2C-4	Not detected.
	Uranium	2C-3	Not analyzed. [c]
	Vanadium	2C-3	Not analyzed. [c]
	Vanadyl Sulfate	2C-4	Sulfate = 54.3 mg/L

a. Results are from operational samples collected from the RLWTF Effluent Tanks. These samples are representative of the effluent after final treatment and the potential discharge to Outfall 051.
b. The potential pollutant was determined to not be associated with a "Listed" Resource Conservation and Recovery Act (RCRA) hazardous waste at the point of generation. This waste determination was documented with the associated waste stream profile form and in the waste characterization and tracking system database.
c. The potential pollutant was not analyzed because it is not specifically called out on the Form 2C.

EDTA = Ethylene Diamine Tetraacetic Acid

The safety data sheets associated with the chemicals used to treat water at the RLWTF are provided in Attachment E.

6.0 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS [Section VI]

Section VI is not applicable to Outfall 051.

7.0 BIOLOGICAL TOXICITY TESTING DATA [Section VII]

Whole Effluent Toxicity (WET) 48-hr acute lethality was performed on September 24, 2018 to determine the results at a critical dilution of 100% using a dilution series of 32%, 42%, 56%, 75%, and 100%. The methods used in conducting these tests followed the guidelines stablished by the EPA manual "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition" (EPA-821-R-02-012). The WET including the following criteria as required by the permit:

- Daphnia pulex, 3-hr composite, 1/3 months

The WET test results indicated that the effluent from Outfall 051 passed the test for Daphnia pulex .

8.0 CONTRACT ANALYSIS INFORMATION [Section VIII]

Operational samples from the RWLTF effluent were collected on September 26, 2018 for the Form 2C constituents required by the permit application forms. These samples were submitted to independent laboratories as summarized in Table 6.

Table 6 List of Independent Laboratories Used for NPDES Water Analysis		
Laboratory Name	**Address and Contact Info**	**Analytes**
GEL Laboratories LLC	2040 Savage Road Charleston SC 29407 (843) 556-8171	Biological Oxygen Demand, General Chemistry, Pesticides, Polychlorinated Biphenyls, Radiochemistry, Semi-volatile Organic Compounds, Total Metals, Total Suspended Solids, Volatile Organic Compounds

Table 6
List of Independent Laboratories Used for NPDES Water Analysis

Laboratory Name	Address and Contact Info	Analytes
New Mexico Water Testing Laboratory, Inc.	401 North Coronado Ave Espanola, NM 87532 (505) 929-4545	E.coli
Cape Fear Analytical LLC	3306 Kitty Hawk Road Suite 120 Wilmington, NC 28405 (910) 795-0421	TCDD (Dioxin)
Pacific EcoRisk	2250 Cordelia Rd. Fairfield, CA 94534 (707) 207-7760	Whole Effluent Toxicity

ATTACHMENT 2

Safety Data Sheets for Additional Treatment Chemicals

EPC-DO: 21-075

LA-UR-21-21894

Date: FEB 25 2021

ThermoFisher SCIENTIFIC

SAFETY DATA SHEET

Creation Date 29-Jan-2010 **Revision Date** 18-Jan-2018 **Revision Number** 6

1. Identification

Product Name Sodium bicarbonate

Cat No. : S233-3; S233-10; S23310LC; S233-50; S233-300LB; S233-500; S635-3; S637-12; S637-50; S63750LC; S637-212; XXS637GPD350LB; NC1205558; XXS631PET25KG; NC0710541; NC1150577; NC1522424

CAS-No 144-55-8
Synonyms Sodium hydrogen carbonate; Sodium acid carbonate; Carbonic acid, monosodium salt (Crystalline/Powder/Certified ACS/USP/FCC/EP/BP/WP/JP)

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements

Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Sodium bicarbonate	144-55-8	>95

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation Move to fresh air. Get medical attention immediately if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects None reasonably foreseeable.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products
Sodium oxides
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
0	0	1	N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.
Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid contact with skin, eyes and clothing. Avoid dust formation.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	8.3 0.1M aq. solution
Melting Point/Range	270 °C / 518 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Slightly soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	
Decomposition Temperature	> 50°C
Viscosity	Not applicable
Molecular Formula	C H Na O3
Molecular Weight	84.01

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic.

Conditions to Avoid Avoid dust formation. Incompatible products. Exposure to moist air or water. Excess heat. Temperatures above 50°C.

Incompatible Materials Strong oxidizing agents, Acids

Hazardous Decomposition Products Sodium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological Information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium bicarbonate	LD50 = 4220 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Sodium bicarbonate	144-55-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium bicarbonate	EC50: 650 mg/L/120h	LC50: 8250 - 9000 mg/L, 96h static (Lepomis macrochirus)	-	EC50: 2350 mg/L/48h

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Sodium bicarbonate	X	X	-	205-633-8	-		X	X	X	X	X

Legend:
X - Listed
E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
P - Indicates a commenced PMN substance
R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N

DOT Severe Marine Pollutant N

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 29-Jan-2010
Revision Date 18-Jan-2018
Print Date 18-Jan-2018
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

ThermoFisher SCIENTIFIC

SAFETY DATA SHEET

Creation Date 15-Oct-2009 **Revision Date** 14-Feb-2020 **Revision Number** 2

1. Identification

Product Name Sodium carbonate anhydrous

Cat No. : 10861

CAS-No 497-19-8
Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Alfa Aesar
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757
Email: tech@alfa.com
www.alfa.com

Emergency Telephone Number
During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660.
After normal business hours, call Carechem 24 at (866) 928-0789.

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious Eye Damage/Eye Irritation	Category 2

Label Elements

Signal Word
Warning

Hazard Statements
Causes serious eye irritation

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection
Keep only in original container
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Spills
Absorb spillage to prevent material damage
Storage
Store in a dry place. Store in a closed container
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Sodium carbonate	497-19-8	>95

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

Inhalation Remove to fresh air. If symptoms arise, call a physician. If not breathing, give artificial respiration.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects None reasonably foreseeable.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point Not applicable
Method - No information available

Autoignition Temperature

Explosion Limits
Upper No data available

Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Sodium oxides.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	1	N/A

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Avoid ingestion and inhalation. Wash hands before breaks and immediately after handling the product.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.
Engineering Measures	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	11.3 @ 20°C (10 g/l aq.sol)
Melting Point/Range	854 °C / 1569.2 °F
Boiling Point/Range	1600 °C / 2912 °F @ 760 mmHg
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid,gas)	Not flammable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	2.53
Bulk Density	500-800 kg/m^3
Solubility	Partially soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	C Na2 O3
Molecular Weight	105.99

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat.

Incompatible Materials Strong oxidizing agents, Strong acids, Fluorine, Metals

Hazardous Decomposition Products Sodium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium carbonate	2800 mg/kg (Rat)	> 2000 mg/kg (rabbit)	2.3 mg/l 2h (Rat)

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Sodium carbonate	497-19-8	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains. .

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium carbonate	EC50: = 242 mg/L, 120h (Nitzschia)	Lepomis macrochirus: LC50: 300 mg/L/96h Gambusia affinis: LC50: 740 mg/L/96h	-	EC50: = 265 mg/L, 48h (Daphnia magna)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Sodium carbonate	497-19-8	X	ACTIVE	-

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Sodium carbonate	497-19-8	X	-	207-838-8	X	X	X	X	KE-31380

U.S. Federal Regulations

SARA 313	Not applicable
SARA 311/312 Hazard Categories	See section 2 for more information
CWA (Clean Water Act)	Not applicable
Clean Air Act	Not applicable
OSHA - Occupational Safety and Health Administration	Not applicable
CERCLA	Not applicable
California Proposition 65	This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations	Not applicable
U.S. Department of Transportation	
Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N
U.S. Department of Homeland Security	This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade	No information available

16. Other information

Prepared By	Health, Safety and Environmental Department Email: tech@alfa.com www.alfa.com
Creation Date	15-Oct-2009
Revision Date	14-Feb-2020
Print Date	14-Feb-2020
Revision Summary	SDS authoring systems update, replaces ChemGes SDS No. 497-19-8/1.

Disclaimer

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End of SDS

ThermoFisher SCIENTIFIC

SAFETY DATA SHEET

Creation Date 09-Feb-2010 **Revision Date** 17-Jan-2018 **Revision Number** 5

1. Identification

Product Name Magnesium chloride hexahydrate

Cat No. : M35-12; M35-212; M35-500; M35SAM-1; M35SAM-2; M35SAM-3; XXM3550LB; NC1767692

CAS-No 7791-18-6
Synonyms Magnesium dichloride hexahydrate

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Label Elements
None required

Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Magnesium chloride hexahydrate **Revision Date** 17-Jan-2018

Component	CAS-No	Weight %
Magnesium chloride, hexahydrate	7791-18-6	>95
Magnesium chloride	7786-30-3	-

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects None reasonably foreseeable.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature Not applicable
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Chlorine. Magnesium oxides. Hydrogen chloride gas.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
1	0	1	N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Ensure adequate ventilation. Wear personal protective equipment/face protection. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Storage Keep containers tightly closed in a cool, well-ventilated place. Refer product specification and/or label for storage temperature range.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Powder Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	5-6.5 5% aq. solution
Melting Point/Range	117 °C / 242.6 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	Not applicable
Decomposition Temperature	> 106°C
Viscosity	Not applicable
Molecular Formula	Cl2 Mg . 6 H2 O
Molecular Weight	203.31

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Avoid dust formation.

Incompatible Materials Metals

Hazardous Decomposition Products Chlorine, Magnesium oxides, Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Magnesium chloride, hexahydrate	LD50 = 8100 mg/kg (Rat)	Not listed	Not listed
Magnesium chloride	LD50 = 2800 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation May cause skin, eye, and respiratory tract irritation

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Magnesium chloride, hexahydrate	7791-18-6	Not listed	Not listed	Not listed	Not listed	Not listed
Magnesium chloride	7786-30-3	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea

Magnesium chloride	EC50: 2200 mg/L/72h	Pimephales promelas: EC50: 2.12 g/L:96H	EC50 Pseudomonas putida: EC50:26,14 g/L/h Photobacterium phosphoreum: EC50: 36,3 mg/L/30 min Photobacterium phosphoreum: EC50: 77,2 mg/L/24 h	EC50 : 1400 mg/L/24h

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Magnesium chloride, hexahydrate	7791-18-6	-	-	-
Magnesium chloride	7786-30-3	X	ACTIVE	-

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Magnesium chloride, hexahydrate	7791-18-6	-	-	-	X	X	X	X	-
Magnesium chloride	7786-30-3	X	-	232-094-6	X	X	X	X	KE-22691

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Not applicable

Health Administration

CERCLA	Not applicable
California Proposition 65	This product does not contain any Proposition 65 chemicals.
U.S. State Right-to-Know Regulations	Not applicable
U.S. Department of Transportation	
Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N
U.S. Department of Homeland Security	This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade	No information available

16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Creation Date	09-Feb-2010
Revision Date	17-Jan-2018
Print Date	17-Jan-2018
Revision Summary	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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End of SDS

ThermoFisher SCIENTIFIC

SAFETY DATA SHEET

Creation Date 14-Aug-2009 **Revision Date** 17-Jan-2018 **Revision Number** 4

1. Identification

Product Name Calcium chloride dihydrate

Cat No. : C69-50; C69-500; C69-500LC; C70-500; C79-3; C79-3LC; C79-500; XXC6912KG; NC1773041

CAS-No 10035-04-8
Synonyms (Crystals/Powder/Granules/USP/FCC/EP/Certified ACS)

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious Eye Damage/Eye Irritation	Category 2

Label Elements

Signal Word
Warning

Hazard Statements
Causes serious eye irritation

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear eye/face protection
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Calcium chloride, dihydrate	10035-04-8	>95
Calcium chloride	10043-52-4	-

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Inhalation Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention. If not breathing, give artificial respiration.

Ingestion Do NOT induce vomiting. Get medical attention.

Most important symptoms and effects No information available.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.

Unsuitable Extinguishing Media No information available

Flash Point No information available
Method - No information available

Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products
Hydrogen chloride gas.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	1	N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

Environmental Precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

7. Handling and storage

Handling Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Wash hands before breaks and immediately after handling the product.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	Beige - White
Odor	Odorless
Odor Threshold	No information available
pH	4.5-6.5 100 g/l aq. sol

Melting Point/Range	175 °C / 347 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	0.830
Solubility	1000 g/L @ 0 °C
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	Ca Cl2 . 2 H2 O
Molecular Weight	147.02

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic.

Conditions to Avoid Incompatible products. Excess heat. Avoid dust formation. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Calcium chloride	2301 mg/kg (Rat)	LD50 > 5000 mg/kg (Rabbit)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Calcium chloride, dihydrate	10035-04-8	Not listed	Not listed	Not listed	Not listed	Not listed
Calcium chloride	10043-52-4	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Calcium chloride, dihydrate	-	Lepomis macrochirus: LC50: 10650 mg/L/96h	-	EC50: 3005 mg/L/48h
Calcium chloride	Not listed	Lepomis macrochirus: LC50: 10650 mg/L/96h	Not listed	EC50: 52 mg/L/48h

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility . Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Calcium chloride, dihydrate	0.05

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS-No	TSCA	TSCA Inventory notification - Active/Inactive	TSCA - EPA Regulatory Flags
Calcium chloride, dihydrate	10035-04-8	-	-	-
Calcium chloride	10043-52-4	X	ACTIVE	-

Legend:
TSCA - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Australia (AICS), China (IECSC), Korea (ECL).

Component	CAS-No	DSL	NDSL	EINECS	PICCS	ENCS	AICS	IECSC	KECL
Calcium chloride, dihydrate	10035-04-8	-	-	-	X	X	X	X	-
Calcium chloride	10043-52-4	X	-	233-140-8	X	X	X	X	KE-04496

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Other Information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 14-Aug-2009
Revision Date 17-Jan-2018
Print Date 17-Jan-2018
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

THE CLOROX COMPANY

SAFETY DATA SHEET

Issuing Date January 5, 2015 **Revision Date** June 12, 2015 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name **Clorox® Regular-Bleach$_1$**

Other means of identification

EPA Registration Number 5813-100

Recommended use of the chemical and restrictions on use

Recommended use Household disinfecting, sanitizing, and laundry bleach

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
The Clorox Company
1221 Broadway
Oakland, CA 94612

Phone: 1-510-271-7000

Emergency telephone number

Emergency Phone Numbers For Medical Emergencies, call: 1-800-446-1014
For Transportation Emergencies, call Chemtrec: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

GHS Label elements, including precautionary statements

Emergency Overview

Signal word **Danger**

Hazard Statements
Causes severe skin burns and eye damage
Causes serious eye damage

Appearance Clear, pale yellow **Physical State** Thin liquid **Odor** Bleach

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves, protective clothing, face protection, and eye protection such as safety glasses.

Precautionary Statements - Response

Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Wash contaminated clothing before reuse.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Specific treatment (see supplemental first aid instructions on this label).
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements - Storage

Store locked up.

Precautionary Statements - Disposal

Dispose of contents in accordance with all applicable federal, state, and local regulations.

Hazards not otherwise classified (HNOC)

Although not expected, heart conditions or chronic respiratory problems such as asthma, chronic bronchitis, or obstructive lung disease may be aggravated by exposure to high concentrations of vapor or mist.

Product contains a strong oxidizer. Always flush drains before and after use.

Unknown Toxicity
Not applicable.

Other information
Very toxic to aquatic life with long lasting effects.

Interactions with Other Chemicals
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade Secret
Sodium hypochlorite	7681-52-9	5 - 10	*

* The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General Advice Call a poison control center or doctor immediately for treatment advice. Show this safety data sheet to the doctor in attendance.

Eye Contact Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin Contact Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation Move to fresh air. If breathing is affected, call a doctor.

Ingestion Have person sip a glassful of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor immediately for treatment advice.

Protection of First-aiders Avoid contact with skin, eyes, and clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Burning of eyes and skin.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically. Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
CAUTION: Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical
This product causes burns to eyes, skin, and mucous membranes. Thermal decomposition can release sodium chlorate and irritating gases and vapors.

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with eyes, skin, and clothing. Ensure adequate ventilation. Use personal protective equipment as required. For spills of multiple products, responders should evaluate the MSDSs of the products for incompatibility with sodium hypochlorite. Breathing protection should be worn in enclosed and/or poorly-ventilated areas until hazard assessment is complete.

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental precautions

Environmental Precautions This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams. See Section 12 for ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Absorb and containerize. Wash residual down to sanitary sewer. Contact the sanitary treatment facility in advance to assure ability to process washed-down material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes, and clothing. Do not eat, drink, or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Store away from children. Reclose cap tightly after each use. Store this product upright in a cool, dry area, away from direct sunlight and heat to avoid deterioration. Do not contaminate food or feed by storage of this product.

Incompatible Products Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hypochlorite 7681-52-9	None	None	None

ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH: Immediately Dangerous to Life or Health.

Appropriate engineering controls

Engineering Measures
Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/Face Protection If splashes are likely to occur: Wear safety glasses with side shields (or goggles) or face shield.

Skin and Body Protection Wear rubber or neoprene gloves and protective clothing such as long-sleeved shirt.

Respiratory Protection If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Wash hands after direct contact. Do not wear product-contaminated clothing for prolonged periods. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke when using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Physical State	Thin liquid		
Appearance	Clear	**Odor**	Bleach
Color	Pale yellow	**Odor Threshold**	No information available

Property	**Values**	**Remarks/ Method**
pH	~12	None known
Melting/freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	Not flammable	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
Upper flammability limit	No data available	None known
Lower flammability limit	No data available	None known
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Specific Gravity	~1.1	None known
Water Solubility	Soluble	None known
Solubility in other solvents	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive Properties	Not explosive	
Oxidizing Properties	No data available	

Other Information

Softening Point	No data available
VOC Content (%)	No data available
Particle Size	No data available
Particle Size Distribution	No data available

10. STABILITY AND REACTIVITY

Reactivity
Reacts with other household chemicals such as toilet bowl cleaners, rust removers, acids, or products containing ammonia to produce hazardous irritating gases, such as chlorine and other chlorinated compounds.

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Toilet bowl cleaners, rust removers, acids, and products containing ammonia.

Hazardous Decomposition Products
None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation Exposure to vapor or mist may irritate respiratory tract and cause coughing. Inhalation of high concentrations may cause pulmonary edema.

Eye Contact Corrosive. May cause severe damage to eyes.

Skin Contact May cause severe irritation to skin. Prolonged contact may cause burns to skin.

Ingestion Ingestion may cause burns to gastrointestinal tract and respiratory tract, nausea, vomiting, and diarrhea.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hypochlorite 7681-52-9	8200 mg/kg (Rat)	>10000 mg/kg (Rabbit)	-

Information on toxicological effects

Symptoms May cause redness and tearing of the eyes. May cause burns to eyes. May cause redness or burns to skin. Inhalation may cause coughing.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Sodium hypochlorite 7681-52-9	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
Group 3 - Not Classifiable as to Carcinogenicity in Humans

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.
Chronic Toxicity Carcinogenic potential is unknown.
Target Organ Effects Respiratory system, eyes, skin, gastrointestinal tract (GI).

Aspiration Hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)
54 g/kg
ATEmix (inhalation-dust/mist)
58 mg/L

12. ECOLOGICAL INFORMATION

Ecotoxicity
Very toxic to aquatic life with long lasting effects.

This product is toxic to fish, aquatic invertebrates, oysters, and shrimp. Do not allow product to enter storm drains, lakes, or streams.

Persistence and Degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available.

13. DISPOSAL CONSIDERATIONS

Disposal methods
Dispose of in accordance with all applicable federal, state, and local regulations. Do not contaminate food or feed by disposal of this product.

Contaminated Packaging
Do not reuse empty containers. Dispose of in accordance with all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT	Not restricted.
TDG	Not restricted for road or rail.
ICAO	Not restricted, as per Special Provision A197, Environmentally Hazardous Substance exception.
IATA	Not restricted, as per Special Provision A197, Environmentally Hazardous Substance exception.
IMDG/IMO	Not restricted, as per IMDG Code 2.10.2.7, Marine Pollutant exception.

15. REGULATORY INFORMATION

Chemical Inventories

TSCA	All components of this product are either on the TSCA 8(b) Inventory or otherwise exempt from listing.
DSL/NDSL	All components are on the DSL or NDSL.

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hypochlorite 7681-52-9	100 lb			X

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hypochlorite 7681-52-9	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

EPA Statement
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

> **DANGER: CORROSIVE.** Causes irreversible eye damage and skin burns. Harmful if swallowed. Do not get in eyes, on skin, or on clothing. Wear protective eyewear and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the restroom. Avoid breathing vapors and use only in a well-ventilated area.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Sodium hypochlorite 7681-52-9	X	X	X	X	
Sodium chlorate 7775-09-9	X	X	X		

International Regulations

Canada
WHMIS Hazard Class
E - Corrosive material

16. OTHER INFORMATION

NFPA	**Health Hazard**	3	**Flammability**	0	**Instability**	0	**Physical and Chemical Hazards** -
HMIS	**Health Hazard**	3	**Flammability**	0	**Physical Hazard**	0	**Personal Protection** B

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Revision Date June 12, 2015

Revision Note Revision Section 14.

Reference 1096036/164964.159

General Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

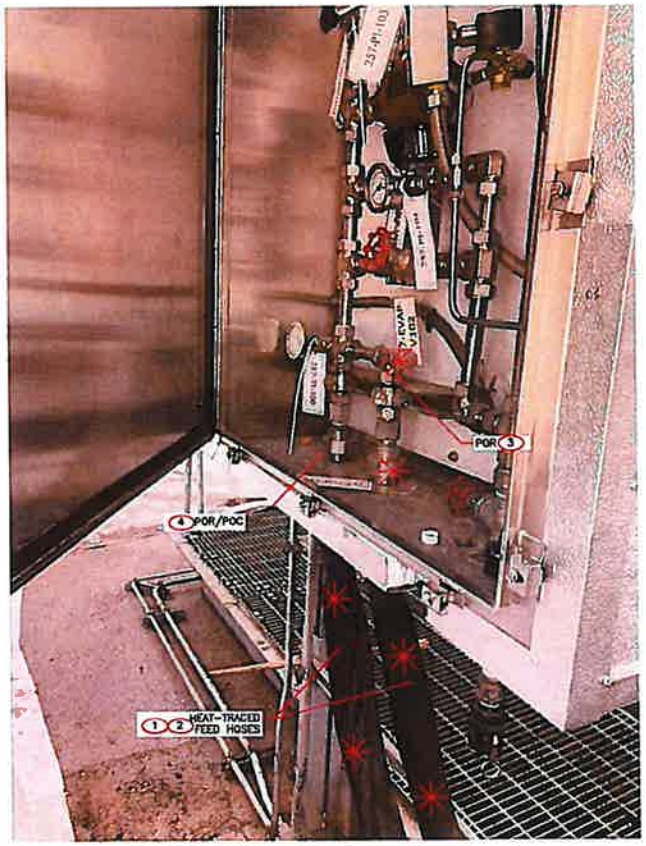
ATTACHMENT 3

Drawings for Improved Piping Modification to Route Aboveground Portion of Effluent Discharge Line into a Trench Box

EPC-DO: 21-075

LA-UR-21-21894

Date: FEB 25 2021



50-0257 FEED CABINET

5 34B HOSE ENTRIES

6 WM-2 EFFLUENT LINE

OUTDOOR DEMO REQUIREMENTS

SCALE: NONE

GENERAL NOTES:

1. DEMO ACTIVITIES SHALL NOT TAKE PLACE UNTIL NEW TRENCH BOXES ARE INSTALLED, ASSOCIATED PIPING IS IN PLACE AND NEW PIPING HAS SUCCESSFULLY PASSED BOTH HYDROSTATIC AND SENSITIVE LEAK TESTS.

KEYED NOTES:

1. DISCONNECT HOSE HEAT TRACE AT LOCAL JUNCTION BOX.
2. REMOVE BOTH EFFLUENT SUPPLY AND RETURN LINES FROM EVAPORATOR FEED CABINET BACK TO CONNECTION IN ROOM 34B.
3. REMOVE PIPE AND FITTINGS ON RIGHT FEED LINE UP TO AND INCLUDING FIRST INTERNAL TEE. INSTALL CAP TO SEAL LINE. PLUG EXTERNAL OPENING IN BOTTOM OF CABINET.
4. DISCONNECT LEFT FEED HOSE AT UNION TO ALLOW INSTALLATION OF NEW FEED HOSE FROM 50-0257 OUTSIDE VALVE BOX.
5. REMOVE 50-0257 SUPPLY AND RETURN FEED HOSES. REMOVE STRUT STAND AND HOSE SUPPORT PLATE.
6. REMOVE 4" EFFLUENT FLEX HOSE BETWEEN 50-0001-34B AND WM-2. INSTALL CAM & GROOVE TYPE PLUG AT REMAINING OPENING.

RELEASED FOR PLANNING BY CM
Nicole M. Martinez

NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP
0				INITIAL ISSUE FOR DCF-19-50-0001-2955					

ENGINEERING SERVICES

34B EFFLUENT TRENCH

OUTDOOR DEMO REQUIREMENTS

TA-50 BLDG 0001

DRAWN / DESIGN / CHECKED / DATE

SUBMITTED R. STRINGFIELD — APPROVED FOR RELEASE C. OWNEVERS

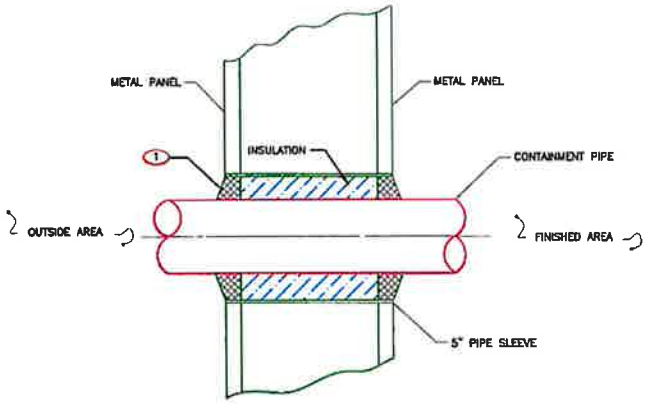
Los Alamos NATIONAL LABORATORY — PO Box 1663 Los Alamos, New Mexico 87545

SHEET MD-1 — 17 OF 19

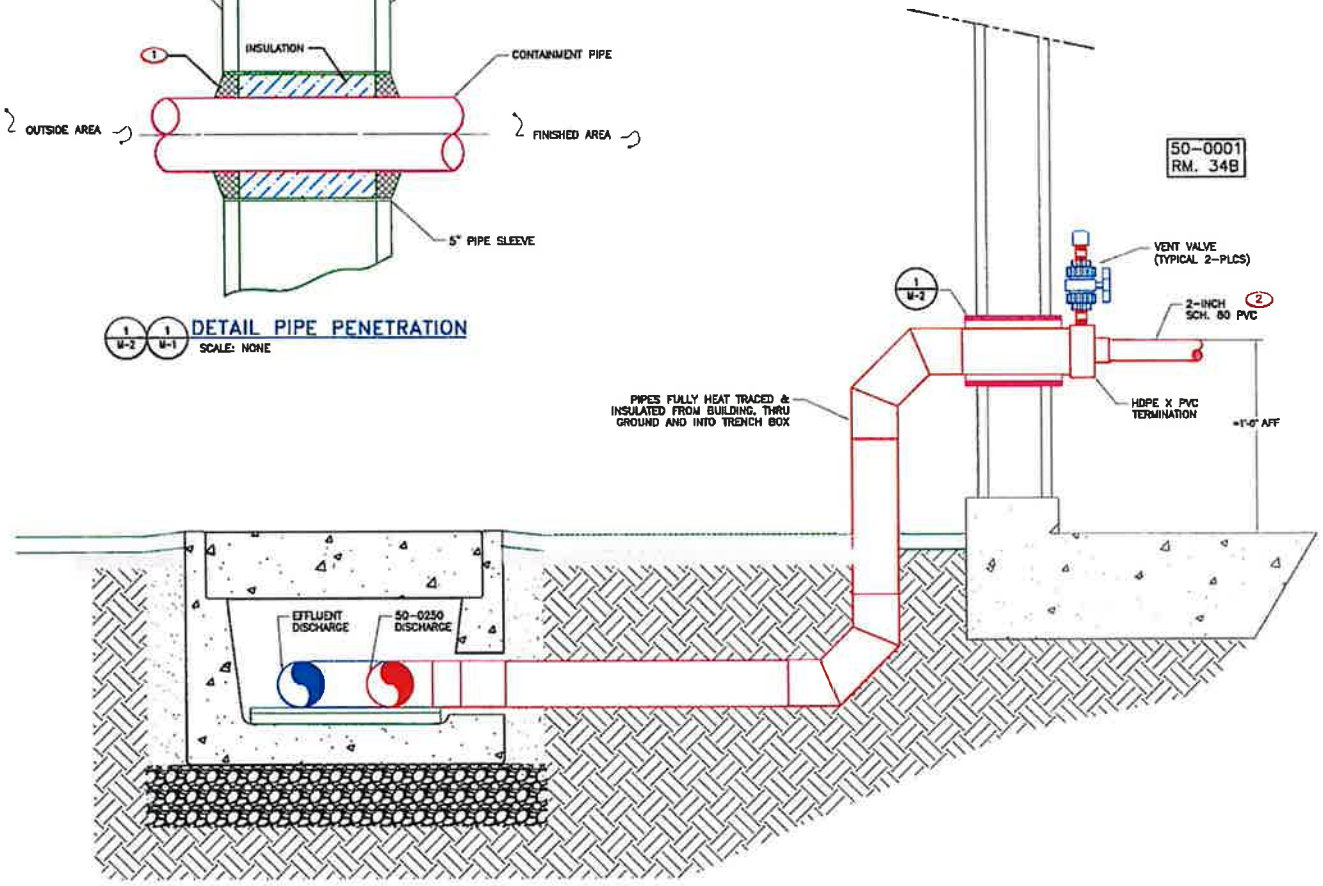
D.C. UNCLASSIFIED — REVIEWER C. OWNEVERS — DATE 01/31/2020

PROJECT ID N/A — DRAWING NO DCF-19-50-0001-2955-SK-1 — REV 0

Plotted By:119873 Plot Date:January 21, 2020
DCF-19-50-0001-2955 SKETCHES.DWG



1 M-2 1 M-1 DETAIL PIPE PENETRATION
SCALE: NONE



A M-1 ROOM 34B PIPE ENTRIES–ELEVATION VIEW–
SCALE: NONE

GENERAL NOTES:

1. DUAL CONTAINMENT PIPING FULLY HEAT TRACED AND INSULATED TO INCLUDE SECTIONS EXITING TRENCH BOX TO BUILDING PENETRATIONS. NOT SHOWN THIS DRAWING FOR CLARITY.

KEYED NOTES:

1. NON-CREDITED WALL PENETRATION. CUT WALL AS NEEDED TO INSTALL 5" THROUGH-PIPE. INSTALL TRENCH BOX PIPING AND FILL VOID WITH FIBERGLASS INSULATION WITHIN 1/2" OF BOTH INTERIOR AND EXTERIOR WALL SURFACES. APPLY RESILIENT NON-HARDENING SEALER LEVEL TO BOTH INTERIOR WALL AND EXTERIOR WALL TO FILL REMAINING GAP.
2. PIPE CONNECTS TO MANIFOLD AT EAST END OF SOUTH FRAC TANK. SEE SHEET M-3 FOR CONTINUATION.

RELEASED FOR PLANNING BY CM
Nicole M. Martinez

NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP
0				INITIAL ISSUE FOR DCF-19-50-0001-2955					

ENGINEERING SERVICES

34B TRENCH BOX

ROOM 34B PIPE ENTRIES
-ELEVATION VIEW-

TA-50 BLDG 0001

DRAWN
DESIGN
CHECKED
DATE

SUBMITTED
APPROVED FOR RELEASE

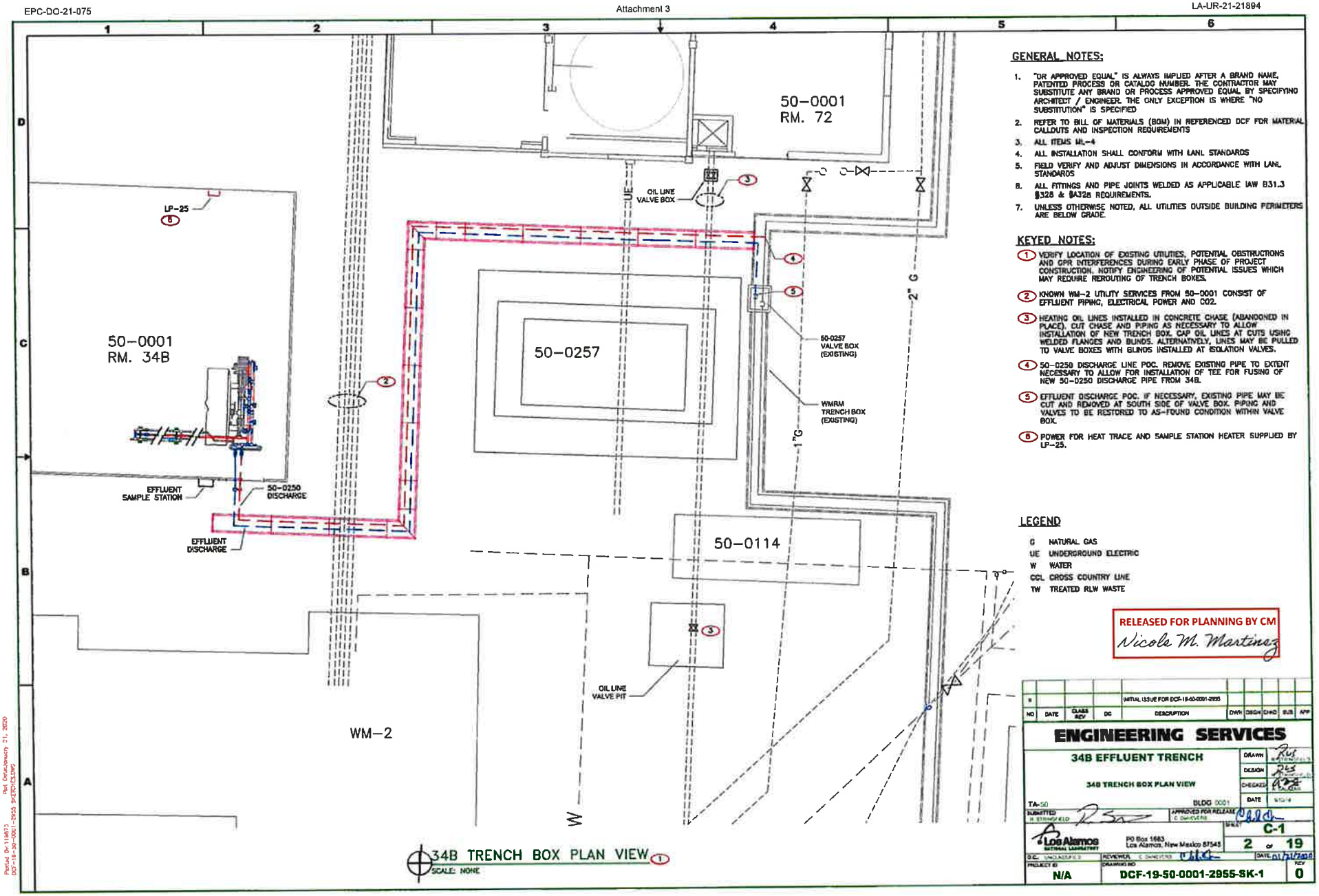
Los Alamos NATIONAL LABORATORY
PO Box 1663 Los Alamos, New Mexico 87545

SHEET M-2
6 OF 19

G.C. UNCLASSIFIED
REVIEWER C. DANEVERS
DATE 01/21/2020

PROJECT ID N/A
DRAWING NO DCF-19-50-0001-2955-SK-1
REV 0

Plotted Dy:110873 Plot Date:January 21, 2020
DCF-19-50-0001-2955 SKETCHES.DWG



34B TRENCH BOX PLAN VIEW (1)
SCALE: NONE

GENERAL NOTES:

1. "OR APPROVED EQUAL" IS ALWAYS IMPLIED AFTER A BRAND NAME, PATENTED PROCESS OR CATALOG NUMBER. THE CONTRACTOR MAY SUBSTITUTE ANY BRAND OR PROCESS APPROVED EQUAL BY SPECIFYING ARCHITECT / ENGINEER. THE ONLY EXCEPTION IS WHERE "NO SUBSTITUTION" IS SPECIFIED
2. REFER TO BILL OF MATERIALS (BOM) IN REFERENCED DCF FOR MATERIAL CALLOUTS AND INSPECTION REQUIREMENTS
3. ALL ITEMS ML-4
4. ALL INSTALLATION SHALL CONFORM WITH LANL STANDARDS
5. FIELD VERIFY AND ADJUST DIMENSIONS IN ACCORDANCE WITH LANL STANDARDS
6. ALL FITTINGS AND PIPE JOINTS WELDED AS APPLICABLE IAW B31.3 §328 & §328 REQUIREMENTS.
7. UNLESS OTHERWISE NOTED, ALL UTILITIES OUTSIDE BUILDING PERIMETERS ARE BELOW GRADE.

KEYED NOTES:

1. VERIFY LOCATION OF EXISTING UTILITIES, POTENTIAL OBSTRUCTIONS AND GPR INTERFERENCES DURING EARLY PHASE OF PROJECT CONSTRUCTION. NOTIFY ENGINEERING OF POTENTIAL ISSUES WHICH MAY REQUIRE REROUTING OF TRENCH BOXES.
2. KNOWN WM-2 UTILITY SERVICES FROM 50-0001 CONSIST OF EFFLUENT PIPING, ELECTRICAL POWER AND CO2.
3. HEATING OIL LINES INSTALLED IN CONCRETE CHASE (ABANDONED IN PLACE). CUT CHASE AND PIPING AS NECESSARY TO ALLOW INSTALLATION OF NEW TRENCH BOX. CAP OIL LINES AT CUTS USING WELDED FLANGES AND BLINDS. ALTERNATIVELY, LINES MAY BE PULLED TO VALVE BOXES WITH BLINDS INSTALLED AT ISOLATION VALVES.
4. 50-0250 DISCHARGE LINE POC. REMOVE EXISTING PIPE TO EXTENT NECESSARY TO ALLOW FOR INSTALLATION OF TEE FOR FUSING OF NEW 50-0250 DISCHARGE PIPE FROM 34B.
5. EFFLUENT DISCHARGE POC. IF NECESSARY, EXISTING PIPE MAY BE CUT AND REMOVED AT SOUTH SIDE OF VALVE BOX. PIPING AND VALVES TO BE RESTORED TO AS-FOUND CONDITION WITHIN VALVE BOX.
6. POWER FOR HEAT TRACE AND SAMPLE STATION HEATER SUPPLIED BY LP-25.

LEGEND

G	NATURAL GAS
UE	UNDERGROUND ELECTRIC
W	WATER
CCL	CROSS COUNTRY LINE
TW	TREATED RLW WASTE

RELEASED FOR PLANNING BY CM
Nicole M. Martinez

NO	DATE	CLASS REV	DC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP
0				INITIAL ISSUE FOR DCF-19-50-0001-2955					

ENGINEERING SERVICES

34B EFFLUENT TRENCH

34B TRENCH BOX PLAN VIEW

DRAWN: RVS
DESIGN: RVS
CHECKED: MDS
DATE: 5/13/19

TA-50 BLDG 0001

SUBMITTED: H. STRAWN-KLO
APPROVED FOR RELEASE: C. DAVIS-EVS

Los Alamos NATIONAL LABORATORY
PO Box 1663, Los Alamos, New Mexico 87545

SHEET: C-1
2 of 19

QC: UNCLASSIFIED
REVIEWER: C. DAVIS-EVS
DATE: 05/21/2019

PROJECT ID: N/A
DRAWING NO: DCF-19-50-0001-2955-SK-1
REV: 0

Plotted On: 11/18/19 Plot Date: January 21, 2020
DCF-19-50-0001-2955 SKETCH.DWG