U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 8
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STATEMENT OF BASIS

PERMITTEE:	Northern Cheyenne Utilities Commission
PERMIT NO.:	MT0029360
RECEIVING WATERS:	Lame Deer Creek to Rosebud Creek
FACILITY:	Lame Deer Lagoon
RESPONSIBLE OFFICIAL:	Shari Bement, General Manager Lame Deer Lagoon WWTF Northern Cheyenne Utility Commission P.O. Box 747, Lame Deer, MT 59043 (406) 477-6318
LOCATION:	NE 1/4 of Section 33 and SE 1/4 of Section 28, Township 2S, Range 41E, Montana Principal Meridian 45.628889°N, 106.673611°W
PERMIT TYPE:	Indian country, Minor, Renewal

I. Permit Status

This statement of basis is for the renewal of the National Pollutant Discharge Elimination System (NPDES) Permit (MT0029360) authorizing discharge from the Lame Deer Lagoon wastewater treatment facility (facility).

The facility is located on the Northern Cheyenne Indian Reservation and is thus in "Indian country" as defined at 18 U.S.C. 1151. The Northern Cheyenne Tribe was granted treatment in a manner similar to a state (TAS) on August 11, 2006, and the EPA approved the Northern Cheyenne Tribe's water quality standards (WQS) on March 21, 2013. The EPA has not approved the Tribe or the State of Montana to implement the Clean Water Act (CWA) NPDES program in Indian country within the State of Montana. The EPA directly implements the CWA NPDES program on Indian country lands within the State of Montana.

II. Facility Information

This Permit is for the discharge from the Lame Deer facility that serves approximately 3,700 residents of the Lame Deer community, Dull Knife College, Lame Deer Elementary School, Northern Cheyenne Tribal Health and the Northern Cheyenne Tribal Headquarters on the Northern Cheyenne Indian Reservation.

The facility consists of a three-cell lagoon system, constructed in portions through the years. The three cells are Cell 1 (facultative), Cell 2 (aeration, currently non-operational) and Cell 3 (polishing/settling). A lift station positioned after a grinder carries influent from the sewer line to Cell 1. If this lift station is non-operational, influent flows directly to Cell 2. Effluent is discharged from the west corner of Cell 3 and is not disinfected prior to discharge.

The facility has been undergoing renovations since 2005, which had been expected to be complete prior to expiration of the Permit adopted in 2011. Those renovations included removal of approximately 700,000 gallons of sludge from Cell 1 and installation of a bentonite liner as well as fermentation pits to improve solids treatment. Dike and cell bottom levels were raised to improve separation from groundwater.

According to the application for this Permit renewal and supplemental information from the Facility, continuing renovations include replacement of approximately 5,400 linear feet of sewer main, improvements to Cell 2 (desludging and aeration installation), and installation of bio-reactor (bio-dome technology) to enhance the biological activity of treatment systems in order to reduce ammonia, BOD and TSS concentrations. Delays in these improvements occurred in 2017, and the renovations are expected to continue in the next permit cycle.

As depicted on the satellite image included with the permit application (Figure 1), influent enters Cell 1, moves through the cells consecutively, and is discharged to Lame Deer Creek from a point near the west corner of Cell 3.

Figure 1. Lame Deer Lagoon WWTF

A. Effluent Characteristics

A summary of self-monitoring effluent data for the period of record (POR) from March 2011 through January 2017 is included in Table 1.

Table 1. Summary of Self-Monitoring Data for March 2011-January 2017

	Value Reported a/				
Parameter	**Minimum**	**Maximum**	**Average**	**No. of Samples**	**No. of Exceed-ances b/**
BOD_5, mg/L	6	110	32.75	64	13
TSS, mg/L	10	53	25.02	61	4
Fecal Coliform, #/100 mL	1	260,000	17,201	34	16 c/
pH, s.u.	6.44	9.32	--	47	1 d/
Oil & Grease, mg/L	0	0	0	50	0
Oil & Grease, Visual	0	0	0	47	0
Flow, MGD	0	0.8	0.55	23	N/A e/

a/ This table shows the minimum, maximum, and average of values reported on the Discharger's monthly reports. The values are calculated from sample averages for BOD_5, TSS and Flow; single sample values for oil & grease and pH; and geometric mean values for fecal coliform.

b/ "Number of Exceedances" is the number of reported values that exceeded one or both, of the numeric limits provided in the Permit. For example, if a single value reported on the DMR exceeded both the 30-day average and the 7-day average, it is counted as a single exceedance in this summary.

c/ Fecal coliform limits became effective September 1, 2012. Only monitoring results provided after September 1, 2012 were included in this summary. Exceedances reported in this table are those values that exceeded the geometric mean limits.

d/ There were 8 reported pH recordings of 0.1 s.u. It is assumed that these were incorrectly recorded, therefore they were not included in the summary.

e/ The final ten reported values for flow, beginning July 2012, were reported as values between 5 and 8 MGD. It is assumed that these values were reported incorrectly. To provide a summary of flow data, these values were divided by 10 (0.5-0.8 MGD), which would make them consistent with other reported values.

B. Compliance History

Based on Discharge Monitoring Report (DMR) data, there were 49 effluent violations during the POR:

- The 30-day average limitation on BOD_5 of 45 mg/L was exceeded 13 times, with reported values ranging from 49-110 mg/L.
- The 30-day average limitation on TSS of 45 mg/L was exceeded four times, with reported values of 53 (twice), 51 and 48 mg/L.
- The instantaneous maximum limitation on pH of 9.0 standard units was exceeded once, in June of 2013, with a reported value of 9.32 s.u.
- The 30-day geometric mean limitation on fecal coliform of 200/100 mL was exceeded 16 times, with reported values ranging from 250/100 mL to 260,000/100 mL.

- The 7-day geometric mean limitation on fecal coliform of 400/100 mL was exceeded 15 times, with reported values ranging from 610/100 mL to 260,000/100 mL.

III. Technology-Based Effluent Limits (TBELs)

Treated effluent from the Lame Deer Lagoon is subject to the Secondary Treatment Regulations found at 40 CFR Part 133. Regulations at 40 CFR § 133.102 require that the minimum level of effluent quality for secondary treatment is 30-day average concentrations of BOD_5 and TSS that do not exceed 30 mg/L and 7-day average concentrations of these parameters that do not exceed 45 mg/L. The secondary treatment regulations also provide a limit for pH to be maintained between 6.0 and 9.0 standard units.

40 CFR § 133.105 provides less stringent standards that may be applied to certain types of facilities that employ treatment technologies deemed equivalent to secondary. POTWs or other facilities treating sewage with trickling filters or waste stabilization ponds (wastewater treatment ponds) are capable, of achieving significant reductions in BOD_5 and TSS, but might not consistently achieve the secondary treatment standards. To be eligible for discharge limitations based on these equivalent-to-secondary standards, a POTW must meet all, of the following criteria specified in 40 CFR § 133.101(g):

- The principal treatment process must be either a trickling filter or waste stabilization pond.
- The effluent quality consistently achievable through proper operation and maintenance of the treatment system is in excess of 30 mg/L BOD_5 and TSS.
- The treatment works as a whole provides significant biological treatment, which is defined in 40 CFR § 133.101(k) as consistently attaining a minimum 65 percent removal of BOD_5 as a monthly average.

The Facility's principal biological treatment system consists of waste stabilization ponds and the effluent concentrations for BOD_5 and TSS are consistently above the effluent quality set forth in 40 CFR §§ 133.102(a) and (b). The Permit issued in 2011 applied equivalent-to-secondary standards as the basis for BOD_5 and TSS effluent limits for the Facility. However, effluent data provided by the Discharger and facility inspections conducted by the EPA show that the Facility has not been properly operated and maintained, as is required for application of equivalent-to-secondary standards. Consequently, the BOD_5 and TSS limitations that apply to the Facility upon the effective date of this Permit are based on the secondary treatment standards at 40 CFR § 133.102(a) and (b): the 30-day average BOD_5 and TSS concentrations shall not exceed 30 mg/L and the 7-day average concentrations shall not exceed 45 mg/L.

The percent removal requirements for BOD_5 and TSS required by 40 CFR § 133.102(a)(3) are not included in this permit. Compliance with percent removal requirements generally is based on influent and effluent data taken at approximately the same time. The hydraulic residence time in the Facility's lagoon system is typically greater than 30 days. The percent removal requirement is based on a 30-day average, but for the lagoon system, influent and effluent samples collected within a given 30-day period are not representative of the same wastewater. It is infeasible to calculate the 30-day average percent removal, based on the operation of lagoon treatment systems.

40 CFR § 133.102(c) establishes the pH limits for all types of facilities. The pH requirement in the secondary treatment standards is pH within the range of 6.0 to 9.0 standard units at all times, however as discussed below, the water quality-based effluent limitations (WQBELs) for pH in this Permit are based on the Northern Cheyenne Tribe WQS. These WQBELs are more restrictive than limits based on the secondary treatment standards.

IV. Water Quality-Based Effluent Limits (WQBELs)

WQBELs, which are based on WQS, must be established for any parameters where TBELs are not sufficient to ensure water quality standards will be attained in the receiving water (40 CFR § 122.44(d)). The parameters that must be limited are those that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an exceedance of water quality standards.

The Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation adopted surface water quality standards for the Reservation that were approved by the EPA and became effective on March 21, 2013. This section provides a basis and rationale for establishing WQBELs based on the applicable water quality standards of the receiving water.

A. Receiving Waters

The discharge from the facility enters Lame Deer Creek from cell three of the Lagoon at a point approximately 2,000 feet due north of U.S. Highway 212. The full length of the mainstem of Lame Deer Creek, approximately 7.5 miles over land, is located on the Northern Cheyenne Indian Reservation, flowing into Rosebud Creek just south of the northern boundary of the Reservation. Rosebud Creek is tributary to the Yellowstone River.

B. Fish Species/Life Stages Present

The Montana Natural Heritage Program Fish of Montana field guide (updated March 9, 2016) was used to identify forty-two fish species potentially present on the Northern Cheyenne Indian Reservation. The Montana Fisheries Information System (M-FISH) was used to establish the most common species; however M-FISH did not supply survey data for Lame Deer Creek. Since Lame Deer creek is tributary to Rosebud Creek, the M-FISH survey for Rosebud Creek was reviewed. The most common species of fish identified in the M-FISH Rosebud Creek survey are channel catfish, carp, flathead chub, longnose dace, northern pike, sauger, shorthead redhorse and white sucker.

Based on "Spawning Times of Montana Fishes," Don Skaar, Montana FWP, 3/6/01, these most common species are present in early life stages from March through August. However, other species potentially present in Lame Deer Creek, though less abundant, are shown to have early life stages present throughout the rest of the calendar year. In consideration of ammonia and dissolved oxygen, early life stages of salmonid and non-salmonid fishes are assumed to be present in Lame Deer Creek year-round. Early life stages include all embryonic and larval stages and all juvenile forms of fish to 30-days following hatching.

C. Water Quality Considerations

The Northern Cheyenne WQS classify the mainstem of Lame Deer Creek as Class 1 Cold Water with the following designated uses: Salmonid propagation/growth; recreation – incidental contact; drinking water after conventional treatment; wildlife, agricultural, industrial, cultural, and wetland. Numeric or narrative criteria have been developed for various parameters, including several that are likely to be discharged from the facility: fecal coliform bacteria, *Escherichia coli* (*E. coli*), total residual chlorine, oil

and grease, ammonia and nutrients, as well as for physical characteristics such as pH, temperature, and dissolved oxygen.

The WQS include the following narrative water quality criteria at Sections 1.3.5.A and B:

1. [1.3.5.A.] Reservation surface waters must be free from substances which are or may become injurious to public health, safety, welfare, or any of the designated or existing beneficial uses. Such substances may or will:

    a. Settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines;
    b. Create floating debris, scum, a visible oil film (or oil be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials;
    c. Produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible;
    d. Create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life except for pesticide application as described in the Standards;
    e. Create conditions which produce undesirable aquatic life.

2. [1.3.5.B.] No pollutants may be discharged which, either alone or in combination with other pollutants, will cause exceedances of surface water quality standards or criteria.

Pollutants typically present in treated effluent from domestic wastewater treatment facilities that may cause or contribute to exceedances of water quality standards include conventional pollutants such as biological material (measured by BOD_5), TSS, oil and grease, fecal coliform bacteria, and pH; and non-conventional pollutants or parameters such as *E. coli*, total residual chlorine (TRC), ammonia (NH_3), total nitrogen (TN), total phosphorous (TP), dissolved oxygen and total dissolved solids.

Based on the domestic nature of the discharge and absence of industrial users, other parameters, including most priority and non-conventional pollutants with numeric criteria established for the agricultural and drinking water designated uses of Lame Deer Creek, are not expected to be discharged in quantities that would cause, have reasonable potential to cause, or contribute to an excursion of the Northern Cheyenne WQS; therefore effluent limitations and monitoring are not required for those additional parameters.

1. Conventional Pollutants
   BOD_5, TSS, and pH – The Northern Cheyenne WQS do not include numeric criteria for BOD_5 or TSS, so no WQBELs are necessary for these pollutants at this time. The water quality criterion for pH is 6.5 to 9.0 standard units, which is more stringent than the TBEL, and will apply as the WQBEL.

   Dissolved Oxygen – Numeric criteria for dissolved oxygen are established by the Northern Cheyenne WQS. These criteria are based on the presence or absence of early life stages of freshwater aquatic life. There are currently no dissolved oxygen data for the lagoon system's effluent; however, the discharge has consistently exceeded its technology-based effluent limitations for BOD_5, indicating elevated discharges of oxygen-demanding organic material.

Limitations based on the dissolved oxygen criteria, assuming fish early life stages present, are included in this Permit. Monitoring will be required to evaluate compliance with the effluent limits and to provide data to reevaluate the need for WQBELs for dissolved oxygen.

Fecal coliform – During periods when the daily maximum water temperature is greater than 15.5 C, the geometric mean number of organisms in the fecal coliform group must not exceed 200 per 100 milliliters, nor are 10% of the total samples during any 30-day period to exceed 400 fecal coli forms per 100 milliliters. Fecal coliform sampling shall occur at least five times during a calendar month, with sampling events equally spaced throughout the calendar month.

The WQS include a Mixing Zone and Dilution Policy which provides basis for the denial of mixing zones when the potential exists for human exposure to pollutants resulting from drinking water or recreational activities. Of 34 fecal coliform samples reported during the period of record, 16 reported averages exceeded the 30-day geometric mean limit of 200 colonies/100 mL and 15 of the reported averages exceeded the 7-day geometric mean limit of 400 colonies/100 mL. Based on these exceedances, and because two of the designated uses of the mainstem of Lame Deer creek are recreation (incidental contact) and drinking water after conventional treatment, numeric limitations for fecal coliform are established by applying the water quality criteria at end-of-pipe.

Oil and Grease – The Permit issued in 2011 included an effluent limitation for oil and grease of 10 mg/L. The Northern Cheyenne WQS includes a narrative criterion that Reservation surface waters must be free from substances which may or will "create floating debris, scum, a visible oil film (or oil be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials." The reissued Permit includes as WQBELs both a numeric limit of 10 mg/L and narrative limitation stating that "[there shall be no] visible sheen in the receiving water or adjoining shoreline." Visual monitoring for oil and grease shall occur weekly. In the event that an oil sheen or floating oil is observed in the discharge, a grab sample shall immediately be taken, analyzed, and the results reported.

2. Non-conventional Pollutants

E. coli – The Northern Cheyenne WQS establish numeric criteria for *E. coli* of 126 colonies per 100 mL as a 30-day geometric mean and a single sample maximum of 406 colonies per 100 mL for waters designated for incidental recreational use. The numeric criteria for *E. coli* established by the WQS will be applied at end-of-pipe as numeric effluent limitations for the duration of this Permit based on the potential for human exposure as discussed above for fecal coliform bacteria. Because the WQS specify a statistically sufficient number of samples as "not less than 5 samples equally spaced over a 30-day period," sampling for *E. coli* is to occur five times during each calendar month, with sampling events equally spaced throughout the calendar month.

Floating solids – The previous Permit contained the narrative limitation of "there shall be no discharge of floating solids or visible foam in other than trace amounts." This Permit retains a similar narrative limitation revised to more closely match the narrative criterion in the water quality standards, which states: "Reservation surface waters must be free from substances … [that may or will] … Create floating debris, scum, a visible oil film (or oil be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials." The prohibitions of visible oil film, globules of grease, or oil present in concentrations in excess of 10 mg/L is addressed by the oil and grease limitations.

Temperature – The temperature limitation in this Permit is based on the physical and biological criteria maximum value of 20ºC established by the Northern Cheyenne WQS for waters designated Class 1 Cold Water Salmonid Propagation. Temperature will be monitored monthly and the temperature requirement will be applied as a single sample limit.

Total Residual Chlorine (TRC) – The TRC limitations are based on the numeric criteria established in the Northern Cheyenne WQS of 0.019 mg/L (acute, 1-hour average) and 0.011 mg/L (chronic, 4-day average). The discharger has not yet selected and installed a disinfection system at the facility. If a disinfection system that does not use chlorine is selected, the TRC monitoring requirements and limitations do not apply. If a system that uses chlorine is selected, TRC limitations will apply and TRC monitoring will be required weekly. A mixing study of the effluent and receiving water has not been completed; therefore, the TRC limitations are applied based on meeting the water quality criteria end-of-pipe.

EPA is setting the minimum level at 0.05 mg/L when using this method. The permittee shall conduct analyses of total residual chlorine in accordance with this method and report actual analytical values. Measured values greater than or equal to 0.05 mg/L will be considered violations of the effluent limitations and values less than 0.05 mg/L will be considered to be in compliance with the effluent limitations. For average effluent limits, compliance shall be determined by taking the arithmetic mean of values reported for a specified averaging period, using zero (0) for any value reported at a concentration less than the minimum level and comparing that mean to the appropriate average effluent limit. An arithmetic mean that is less than or equal to the average effluent limit shall be considered in compliance with that effluent limit.

NH_3, TN, and TP – There is no available effluent data for NH_3, TN, and TP. Ambient data at a location north of the facility were analyzed for these parameters. The results for samples analyzed between September 2005 and July 2016 are summarized below.

Table 2. Maximum Nutrient Values in Lame Deer Creek near Rosebud Creek

	Ammonia	Nitrogen	Phosphorus
Maximum	0.15 mg/L	0.21 mg/L	0.54 mg/L
Average	0.080 mg/L	0.18 mg/L	0.20 mg/L
# of samples	27	2	23

The Northern Cheyenne WQS do not establish criteria for TN. For TP, the WQS include a reference to narrative criteria. The Tribe's narrative criteria include a provision stating that "Reservation surface waters must be free from substances which are or may become injurious to public health, safety, welfare, or any of the designated or existing beneficial uses." This provision addresses substances that may or will produce odors, colors or other conditions which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life except for pesticide application; and create conditions which produce undesirable aquatic life. The Tribe has not interpreted its narrative criteria to derive numeric values for TN or TP. Quarterly monitoring for TP and TN are required to allow future evaluation of the need for WQBELs and to assure attainment of narrative criteria from the WQS.

Effluent limitations for ammonia are included in the permit based on the supplemental data provided by the applicant. The ammonia limits are new, and the limited data the EPA has indicates that the facility will need time to come into compliance. Compliance schedules are authorized under 40 CFR § 122.47 and are intended to be used when compliance with water quality based effluent limits is not feasible upon permit issuance. They provide a timeline for permittees to meet new or lower effluent limits and must require compliance as soon as possible. The Permittee will have until 42 months after the effective date of the permit, to optimize treatment for ammonia using the bio-reactors. The ammonia limitations will not become effective until 42 months after the effective date. This time is being allowed in order for the Facility to complete installation of bio-reactor technology enhancements and upgrades which are currently underway. Since the compliance schedule for ammonia is longer than one year, annual milestones are required and must be reported to the EPA (40 CFR § 122.47) and are included in the Permit.

The ammonia limit will be a calculated limit due to the lack of data. However, the EPA is requiring end-of-pipe effluent monitoring for ammonia, as well as receiving water monitoring for time, date, temperature, and pH. The additional ammonia data and receiving stream data collected over the next three years may be used to calculate a monthly ammonia limit. It is incumbent upon the permittee to formally request a permit modification from the EPA for numeric ammonia limits once sufficient data is available. If at this time, the permittee formally requests a recalculation and set monthly ammonia limit, the EPA will reopen the permit and establish a monthly limitation. If the permittee does not request a calculated monthly limitation, the Northern Cheyenne WQS ammonia calculation will be the limitation for ammonia, effective 42 months after the effective date of the permit.

Total Dissolved Solids – Monitoring for Total Dissolved Solids is required to evaluate the nature of the discharge and the potential impact on designated uses of the receiving water, including agricultural uses. Monitoring for Total Dissolved Solids is required quarterly for the duration of the Permit, but the frequency may be increased or decreased at the next permit issuance based on the results of monitoring during this Permit term.

3. Antidegradation

The Northern Cheyenne WQS includes an Antidegradation Policy applicable to all surface waters of the Tribe. Antidegradation requirements are triggered whenever a regulated activity is proposed that may have some effect on surface water quality. Such activities are reviewed to determine, based on the level of antidegradation protection afforded to the affected waterbody segment, whether the proposed activity should be authorized. In general, it is presumed that a majority of tribal waters qualify for Tier 2 protection. Once it is determined that Tier 2 protection applies to a waterbody, the next step in the review process is to determine whether the degradation that will result from the proposed activity is significant enough to warrant further review (such as evaluation of alternatives).

This permit does not allow any new or increased discharge concentrations of pollutants from the Lame Deer Lagoon facility to Lame Deer Creek. Furthermore, there has been no significant increase in effluent flow from the Facility since the previous permit was issued and, therefore, no significant increase in pollutant loading. Consequently, this permit would not result in significant degradation and, based on the Tribe's antidegradation policy, no further analysis is necessary.

V. Final Effluent Limitations

The effluent limitations in Table 3 will be applied to the discharge at Outfall 001 for the duration of the permit cycle. All limits become effective on the effective date of this Permit. Limits are based on the most stringent of either the TBELs or WQBELs presented in Sections III and IV, respectively.

Table 3. Effluent Limitations Included in the Permit

Effluent Characteristic	Effluent Limitation		
	Average Monthly a/	Average Weekly a/	Daily Maximum a/
BOD_5, mg/L	30	45	N/A
Total Suspended Solids, mg/L	30	45	N/A
Fecal coliform, cfu/100 mL	200 b/	N/A	400 b/
E. coli, cfu/100 mL	126 c/	N/A	406 c/
Total Residual Chlorine, mg/L d/	0.011	N/A	0.019
Ammonia as N, mg/L	See Permit section 1.3.1.1		N/A
The pH of the effluent shall not be less than 6.5 standard units or greater than 9.0 standard units (s.u.) in any single sample or analysis.			
The Dissolved Oxygen limitation 7 Day mean cannot be less than 6.5 mg/L and the 1 Day Minimum cannot be less than 5.0 mg/L.			
The concentration of oil and grease in any single sample shall not exceed 10 mg/L nor shall there be any visible sheen in the receiving water or adjoining shoreline.			
The temperature of the effluent shall not exceed 20ºC in any single sample or analysis.			
There shall be no discharge of floating debris, scum, or other floating materials.			

a/ See Permit Definitions, section 1.1, for definition of terms.

b/ Fecal coliform: From March 1 through October 31 each year, the geometric mean number of organisms in the fecal coliform group must not exceed 200 cfu/100 mL. In addition, no more than 10 percent of the total samples during any month are to exceed 400 cfu/100 mL.

c/ *E. coli*: Based on a statistically sufficient number of samples (not less than 5 samples equally spaced over a month), the geometric mean of the *E. coli* densities shall not exceed 126 per 100 mL. In addition, no single sample shall exceed 406 per 100 mL.

d/ The limits for Total Residual Chlorine are only applicable if chlorine is used in the disinfection process, once installed. The limits are below the minimum level of 0.05 mg/L for the required analytical method. Measured values greater than or equal to 0.05 mg /L are considered violations of the effluent limitations and measured values less than 0.05 mg /L are considered to be in compliance with the effluent limitations.

VI. Self-Monitoring and Reporting Requirements – Outfalls 001 and 001R

The self-monitoring requirements in Table 4 apply to Outfall 001. The frequency of effluent self-monitoring requirements for BOD_5, TSS and fecal coliform has been increased compared to the previous Permit because several DMRs have indicated exceedances of permit limitations. The frequency of monitoring for oil and grease has been increased compared to the previous Permit because the Lame Deer Lagoon facility is a continuous discharge outfall with several food service establishments in the service area. Weekly monitoring for oil and grease will provide a higher level of water quality protection than the monthly monitoring required in the previous permit. Monitoring for parameters for which new water quality standards have been adopted, and which are expected to be discharged by the facility, has been added to determine whether the discharge will cause, have the reasonable potential to cause, or contribute to an exceedance of those standards.

Table 4. Monitoring Requirements – Outfall 001

Effluent Characteristic a/	Frequency	Sample Type b/
Flow, MGD c/	Daily	Instantaneous
BOD_5, mg/L	Monthly	Grab
Total Suspended Solids, mg/L	Monthly	Grab
pH, standard units	Weekly d/	Instantaneous
Dissolved Oxygen, mg/L	Monthly	Grab
Fecal Coliform, no./100 ml. e/	5 per month f/	Grab
E. coli, no./100 ml.	5 per month f/	Grab
Oil and Grease (visible sheen) g/	Weekly	Visual Observation
Oil and Grease, mg/L g /	Weekly	Grab
Temperature, ºC	Weekly d/	Instantaneous
Total Residual Chlorine, mg/L h/	Weekly	Grab
Ammonia, as N, mg/L	Monthly d/	Grab
Total Phosphorous, µg/L	Quarterly	Grab
Total Nitrogen, µg/L	Quarterly	Grab
Total Dissolved Solids, mg/L	Quarterly	Grab

a/ All monitored data shall be recorded in a daily log (paper or electronic). If no discharge occurs on any one day, zero (0) shall be recorded in the daily log for that day for flow and for all other parameters required to be monitored. If the required data are not entered in the daily log on a day that a discharge occurs, it will be assumed that the required monitoring was not performed. If no discharge occurs during the reporting period, the appropriate "No Discharge" code shall be reported on the DMR.

b/ See Permit Definitions, section 1.1, for definition of terms.

c/ Flow monitoring shall be daily. Flow measurements of effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. The average flow rate (in million gallons per day) during the reporting period and the maximum flow rate observed (in mgd) shall be reported.

d/ Monitoring for pH and temperature must be conducted at the same time as the sample to be analyzed for ammonia is taken.

e/ Monitoring for fecal coliform is required from March 1 to October 31 only.

f/ Samples shall be equally spaced over a calendar month.

g/ If a visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample.

h/ Monitoring for Total Residual Chlorine is required only if chlorine is used as part of the disinfection process.

pH – Due to reported exceedances of the pH limit, monitoring will be increased from monthly to weekly to better characterize the effluent.

Oil and grease – The previous Permit contained visual monitoring of oil and grease as well as a sampling requirement upon observation of visible sheen and a numeric limitation of 10 mg/L. The Lame Deer Lagoon facility is a continuous discharge outfall with several food service establishments in the service area. With this Permit issuance, the visual observation requirement for oil and grease has been increased from monthly to weekly because weekly monitoring for oil and grease will provide a higher level of water quality protection than the monthly monitoring required in the previous permit.

Fecal coliform – The previous permit contained a limit for fecal coliform. With this permit issuance the sampling requirement for fecal coliform will be increased to require 5 samples per month, evenly spaced throughout the month. This increase in sampling requirement is necessary to meet the Northern Cheyenne WQS's geometric mean reporting requirement.

E. coli – The previous Permit did not require monitoring of *E. coli*. However, because the Northern Cheyenne WQS include numeric criteria for *E. coli*, and WQBELs based on meeting those criteria at the end-of-the-pipe have been included in this Permit, *E. coli* monitoring will be required for the duration of this Permit.

Nutrients – Because the human waste in domestic wastewater is a source of nutrient pollution, and the WQS include numeric criteria that address ammonia and narrative criteria that may be interpreted to address total phosphorus and total nitrogen, this Permit contains monitoring requirements for these constituents. Total phosphorus and total nitrogen monitoring are required quarterly to provide data for future evaluation of the need for WQBELs and to assure attainment of narrative criteria from the WQS.

Ammonia monitoring is being required monthly from the facility, additionally, in-stream temperature and pH monitoring are being required to provide adequate date to determine ammonia limits and to assess the efficacy of facility modifications and the utilization of bio-reactors to be installed in 2018.

The self-monitoring requirements in Table 5 apply to Outfall 001R. As discussed above, ambient monitoring for pH, temperature and the date and time of those samples have been added to appropriately calculate the applicable ammonia criteria and assess attainment of the criterion in the receiving water. At a minimum, upon the effective date of this Permit, the facility is responsible for monitoring these parameters monthly. Monitoring of receiving stream parameters shall occur in Lame Deer Creek. The monitoring point selected is located at the Montana Highway 39 bridge over Lame Deer Creek about three and one-half miles north of Lame Deer, approximate latitude 45.667570° N, longitude 106.699640° W, as described in section 1.2 of the Permit.

Table 5. Monitoring Requirements – Outfall 001R

Effluent Characteristic a/	Frequency	Sample Type b/
pH, standard units	Monthly	Instantaneous
Temperature, ºC	Monthly	Instantaneous
Time sample collected	Monthly	Instantaneous
Date sample collected	Monthly	Instantaneous

a/ All monitored data shall be recorded in a daily log (paper or electronic). If no discharge occurs on any one day, zero (0) shall be recorded in the daily log for that day for flow and for all other parameters required to be monitored. If the required data are not entered in the daily log on a day that a discharge occurs, it will be assumed that the required monitoring was not performed. If no discharge occurs during the reporting period, the appropriate "No Discharge" code shall be reported on the DMR.

b/ See Permit Definitions, section 1.1, for definition of terms.

A. Reporting of Monitoring Results

Upon the effective date of this Permit, the Permittee must electronically submit discharge monitoring reports (DMRs) on a monthly frequency using NetDMR. Electronic submissions by permittees must be submitted to EPA Region 8 no later than the 28th of the month following the completed reporting period. The Permittee must sign and certify all electronic submissions in accordance with the signatory requirements of the Permit. NetDMR is accessed from the internet at https://netdmr.zendesk.com/home. In addition, the Permittee must submit a copy of the DMR to the Northern Cheyenne Tribe's Environmental Protection Department. Currently, the Permittee may submit a copy to the Northern Cheyenne Tribe's Environmental Protection Department by one of three ways: 1. a paper copy may be mailed, 2. the email address for Northern Cheyenne Tribe's Environmental Protection Department may be added to the electronic submittal through NetDMR, or 3. the Permittee may provide the Northern Cheyenne Tribe's Environmental Protection Department viewing rights through NetDMR.

VII. Endangered Species Act Requirements

Section 7(a) of the Endangered Species Act requires federal agencies to ensure that any actions authorized, funded or carried out by an agency are not likely to jeopardize the continued existence of any federally-listed endangered or threatened species or adversely modify or destroy critical habitat of such species.

According to U.S. Fish & Wildlife Service, Information for Planning and Conservation (IPaC) website (https://ecos.fws.gov/ipac/), the federally listed endangered species found in the area of the Facility include:

Species	Status
Black-footed Ferret (*Mustela nigripes*)	Endangered
Northern Long-eared Bat (*Myotis septenrionalis)*	Threatened
(No critical habitats are located in the project area)	

Determination

The EPA has determined this Permit renewal is not likely to adversely affect any of the species listed by the U.S. Fish and Wildlife Service under the Endangered Species Act within Rosebud County or the Northern Cheyenne Indian Reservation. The finding is based upon the following:

- The reissue of this Permit does not allow any increase in effluent limitations over the previous Permit.
- There is no new construction or Facility size increase that would result in ground disturbance or vegetation removal with the reissue of this Permit.
- The Facility location is in a creek bottom adjacent to the built-up area of the Lame Deer, which is not an area the Black-footed Ferret would normally frequent.

Before going to public notice, a copy of the draft Permit, this Statement of Basis and the Official Species List was sent to the USFWS requesting concurrence with the EPA's finding that reissuance of this NPDES Permit (MT-0029360) for the Lame Deer Lagoon is Not Likely to Adversely Affect any of the species listed as threatened or endangered for the Northern Cheyenne Indian Reservation by the USFWS under the Endangered Species Act nor their critical habitat. On November 21, 2017, the USFWS concurred with the EPA's finding.

VIII. National Historic Preservation Act (NHPA) Requirements

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. § 470(f) requires that federal agencies consider the effects of federal undertakings on historic properties. The EPA has evaluated its planned reissuance of the NPDES Permit for the Lame Deer Lagoon system to assess potential effects on any listed or eligible historic properties or cultural resources.

The EPA does not anticipate any impacts on listed/eligible historic or cultural properties because this Permit is a renewal and will not be associated with any new ground disturbances or changes to the volume or point of discharge. During the public comment period, the EPA notified the Tribal Historic Preservation Office (THPO) of the Northern Cheyenne Tribe of the planned issuance of this NPDES Permit and request input on potential effects on historic properties and EPA's preliminary determination in this regard.

IX. Miscellaneous

The effective date and the expiration date of the Permit will be determined at the time of Permit issuance. This NPDES Permit shall be effective for a fixed term not to exceed 5 years.

Permit drafted by: Kristy Allen, Environmental Scientist, Tetra Tech. June 2017
Permit reviewed by: David Rise and VelRey Lozano, U.S. EPA. October 2017
Response to Comments and Permit edits by: David Rise, U.S. EPA. January 2018

ADDENDUM:

Response to Comments

The permit and statement of basis were public noticed in the Bighorn County News on November 30, 2017. Comments on the draft Permit were received from the Permittee, the Northern Cheyenne Tribe Department of Environmental Protection and Natural Resources, and the Indian Health Service. The summary of the comments and the EPA's responses are provided below.

Comment(s): All commenters felt the 36-month compliance schedule was not enough time to meet ammonia limits and suggested the compliance schedule for ammonia be increased beyond 36 months to allow sufficient time to gather monitoring data, assess the new Biodome® treatment and remove sludge from the lagoon cells. The commenters note the need for additional time (12 to 18 months) to install and collect effluent data which will be used in evaluating the effectiveness of the Biodomes® in treating for ammonia.

Response: Based on the information provided by the commenters, EPA agrees that 42 months is necessary to implement changes and meet the final effluent limit for ammonia. The Permit compliance schedule reporting requirements and milestones will be adjusted to reflect the change. The effluent monitoring and ambient stream monitoring will still be required to provide the needed data the EPA will use in calculating monthly average and daily maximum ammonia effluent limits for the next permit once complete installation and operation are in place for the facility.

Comment(s): Commenters noted the Average Monthly and Daily Maximum values for total residual chlorine are reversed in the effluent limits tables of the Statement of Basis and Permit. The acute limit in the Tribe's WQS is 0.019 mg/L and should correspond to the Daily Maximum value and 0.011 mg/L is the chronic limit in the Tribe's WQS and should correspond to the Average Monthly value.

Response: The effluent limit tables in the Statement of Basis and Permit were changed to show the correct total residual chlorine values in the monthly average and daily maximum cells of the tables.

Comment(s): On commenter noted the ammonia limit was calculated as the water quality standard due to lack of data and expressed concern that data collected during this permit may result in different ammonia limits in the next permit. If the EPA data indicates that more stringent ammonia limits will be required, the utility will again be in the position of needing to upgrade to remain in compliance. If EPA data indicates that less stringent limits are required, the utility may be burdened with maintaining and operating more equipment than is necessary to meet the requirements. The commenter recommended the ammonia limit be removed from this permit and used the data collected during this permit to calculate a limit for the next permit.

Response: The Northern Cheyenne Tribe has a water quality standard for ammonia and the EPA has determined that the discharge from the facility has reasonable potential to cause or contribute to an exceedance of that water quality standard. Accordingly, EPA rules at 40 CFR 122.44(d) require that EPA establish a water quality based effluent limit for ammonia to protect Tribal waters.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8
1595 WYNKOOP STREET
DENVER, COLORADO 80202-1129

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"),

the Northern Cheyenne Utilities Commission

is authorized to discharge from the Lame Deer Lagoon wastewater treatment facility located in the NE 1/4 of Section 33 and the SE 1/4 of Section 28, Township 2S, Range 41E, latitude 45.628889° N and longitude 106.673611° W, Rosebud County,

to **Lame Deer Creek, a tributary to Rosebud Creek,**

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein. Authorization for discharge is limited to those outfalls specifically listed in the Permit.

This Permit shall become effective March 1, 2018.

This Permit and the authorization to discharge shall expire at midnight, December 31, 2022.

Signed this 18th day of January, 2018

Authorized Permitting Official

Darcy O'Connor
Assistant Regional Administrator
Office of Water Protection

CONTINUOUS (Rev 6/2017)

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1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1.1. Definitions.

The *average monthly (or 30-day)* limitation, other than for microbiological organisms (e.g., bacteria, viruses, etc.), is the arithmetic mean of all samples collected during a calendar month (or consecutive 30-day period if applicable). Geometric means shall be calculated for microbiological organisms unless specified otherwise in the Permit. The calendar month shall be used for purposes of reporting self-monitoring data on discharge monitoring reports.

The *average weekly (or 7-day)* limitation, other than for microbiological organisms (e.g., bacteria, viruses, etc.), is the arithmetic mean of all samples collected during a calendar week (or consecutive 7-day period if applicable). Geometric means shall be calculated for microbiological organisms unless specified otherwise in the Permit. The calendar week, which begins on Sunday and ends on Saturday, shall be used for purposes of reporting self-monitoring data on discharge monitoring reports. If a calendar week overlaps two months (i.e., the Sunday is in one month and the Saturday in the following month), the weekly average calculated for that calendar week shall be included in the data for the month that contains the Saturday.

Approval Authority means the Director in a NPDES state with an approved state pretreatment program and the appropriate Regional Administrator in a non-NPDES state or NPDES state without an approved state pretreatment program.

CWA means the Clean Water Act (formerly referred to as either the Federal Water Pollution Control Act or the Federal Water Pollution Control Act Amendments of 1972), Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, and Pub. L. 100-4. In this Permit, the CWA may be referred to as “the Act.”

Daily Maximum (*Daily Max.*) is the maximum measured value for a pollutant discharged during a calendar day or any 24-hour period that reasonably represents a calendar day for purposes of sampling. For pollutants with daily maximum limitations expressed in units of mass (e.g., kilograms, pounds), the daily maximum is calculated as the total mass of pollutant discharged over the calendar day or representative 24-hour period. For pollutants with limitations expressed in other units of measurement (e.g., milligrams/liter, parts per billion), the daily maximum is calculated as the average of all measurements of the pollutant over the calendar day or representative 24-hour period. If only one measurement or sample is taken during a calendar day or representative 24-hour period, the single measured value for a pollutant will be considered the daily maximum measurement for that calendar day or representative 24-hour period.

Daily Minimum (*Daily Min.*) is the minimum value allowable in any single sample or instantaneous measurement collected during the course of a day.

Director means the Regional Administrator of the EPA Region 8 or an authorized representative.

E. coli means *Escherichia coli*.

EPA means the United States Environmental Protection Agency.

Geometric mean is defined by the Northern Cheyenne Water Quality Standards as the value obtained by taking the n^{th} root of the product of the measured values where zero values for measured values are taken to be the detection limit.

Grab sample, for monitoring requirements, is defined as a single "dip and take" sample collected at a representative point in the discharge stream.

Instantaneous measurement, for monitoring requirements, is defined as a single reading, observation, or measurement.

Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

Sewage Sludge is any solid, semi-solid or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary or advanced wastewater treatment processes; and a material derived from sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Stormwater means storm water runoff, snow melt runoff, and surface runoff and drainage.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

Whole Effluent Toxicity (WET) is the total toxic effect of an effluent measured directly with a toxicity test. Acute toxicity occurs when 50 percent or more mortality is observed for either species at any effluent concentration. Mortality in the control must simultaneously be 10 percent or less for the effluent results to be considered valid.

1.2. Description of Discharge Points: The authorization to discharge provided under this Permit is limited to the outfall specifically designated below as the discharge location. Discharges at any location not authorized under an NPDES Permit is a violation of the Clean Water Act and could subject the person(s) responsible for such discharge to penalties under Section 309 of the Act.

Outfall Serial Number	Description of Discharge Point
001	Near the west corner of cell three; discharge point is located at latitude 45.628889° N, longitude 106.673333° W.
001R	The Montana Highway 39 bridge over Lame Deer Creek about three and one-half miles north of Lame Deer, approximate latitude 45.667570° N, longitude 106.699640° W.

1.3. Specific Limitations and Self-Monitoring Requirements

1.3.1. **Effluent Limitations**

Interim Effluent Limitations - Outfall 001: Effective immediately and lasting through December 31, 2020, the quality of effluent discharged by the facility shall, at a minimum, meet the limitations as set forth below:

Effluent Characteristic	Effluent Limitation		
	Average Monthly a/	Average Weekly a/	Daily Maximum a/
BOD_5, mg/L	30	45	N/A
Total Suspended Solids, mg/L	30	45	N/A
Fecal coliform, cfu/100 mL	200 c/	N/A	400 c/
E. coli, cfu/100 mL	126 d/	N/A	406 d/
Total Residual Chlorine, mg/L e/	0.011	N/A	0.019
The pH of the effluent shall not be less than 6.5 standard units or greater than 9.0 standard units (s.u.) in any single sample or analysis.			
The Dissolved Oxygen limitation 7 Day mean cannot be less than 6.5 mg/L and the 1 Day Minimum cannot be less than 5.0 mg/L.			
There shall be no visible sheen in the receiving water or adjoining shoreline. If visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample taken.			
The temperature of the effluent shall not exceed 20ºC in any single sample or analysis.			
There shall be no discharge of floating debris, scum, or other floating materials.			

Final Effluent Limitations - Outfall 001: Effective **42 months after the effective date of this permit** and lasting through the end of the permit, the quality of effluent discharged by the facility shall, at a minimum, meet the limitations as set forth below:

Effluent Characteristic	Effluent Limitation		
	Average Monthly a/	Average Weekly a/	Daily Maximum a/
BOD_5, mg/L	30	45	N/A
Total Suspended Solids, mg/L	30	45	N/A
Fecal coliform, cfu/100 mL	200 c/	N/A	400 c/
E. coli, cfu/100 mL	126 d/	N/A	406 d/
Total Residual Chlorine, mg/L e/	0.011	N/A	0.019
Ammonia as N, mg/L	See Section 1.3.1.1		N/A
The pH of the effluent shall not be less than 6.5 standard units or greater than 9.0 standard units (s.u.) in any single sample or analysis.			
The Dissolved Oxygen limitation 7 Day mean cannot be less than 6.5 mg/L and the 1 Day Minimum cannot be less than 5.0 mg/L.			

There shall be no visible sheen in the receiving water or adjoining shoreline. If visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample taken.
The temperature of the effluent shall not exceed 20ºC in any single sample or analysis.
There shall be no discharge of floating debris, scum, or other floating materials.

a/ See Definitions, Part 1.1, for definition of terms.

b/ This limit for Dissolved Oxygen applies as an instantaneous minimum.

c/ Fecal coliform: From March 1 through October 31 each year, the geometric mean number of organisms in the fecal coliform group must not exceed 200 cfu/100 mL. In addition, no more than 10 percent of the total samples during any month are to exceed 400 cfu/100 mL.

d/ *E. coli*: Based on a statistically sufficient number of samples (not less than 5 samples equally spaced over a month), the geometric mean of the *E. coli* densities shall not exceed 126 per 100 mL. In addition, no single sample shall exceed 406 per 100 mL.

e/ The limits for Total Residual Chlorine are only applicable if chlorine is used in the disinfection process, once installed. The limits are below the minimum level of 0.05 mg/L for the required analytical method. Measured values greater than or equal to 0.05 mg/L are considered violations of the effluent limitations and measured values less than 0.05 mg/L are considered to be in compliance with the effluent limitations.

Ammonia Compliance Schedule Requirements

The permittee shall achieve compliance with the effluent limitations for ammonia in Part 1.3.1 of this permit in accordance with the following schedule.

The permittee shall submit the following to the permit issuing authority:

a. An outline of the measures to be taken to achieve compliance with the effluent limitations for ammonia in Part 1.3.1 of this permit; and
b. A schedule for implementing the measures described in Part a above. The schedule includes, but not limited to planning, design, bidding, construction, etc. of the necessary site improvements.

The above items shall be submitted no later than **12 months after the effective date of this permit**.

The permittee shall submit to the EPA a progress report reflecting the project status outlined in Part b above by no later than **18 months after the effective date of this permit**.

The permittee shall begin implementing the measures outlined in Part a above by no later than **24 months after the effective date of this permit**.

The permittee shall submit to the permit issuing authority a progress report reflecting the project status outlined in Part b above by no later than **30 months after the effective date of this permit**.

The permittee shall submit to the permit issuing authority a progress report reflecting the project status outlined in Part b above by no later than **36 months after the effective date of this permit**.

The permittee shall achieve compliance with the effluent limitations for ammonia in Part 1.3.1 of this permit by no later than **42 months after the effective date of this permit**.

Reports of compliance or noncompliance with, or any progress reports, on interim and final requirements contained in this Compliance Schedule shall be submitted no later than 14 days following each schedule date described above. If noncompliance is being reported, the reason for noncompliance shall be reported and the expected date when compliance will be achieved shall be given. The letter shall include the certification statement given in Part 4.7.4 of this permit and the letter shall be signed by a principal executive officer.

1.3.1.1 Ammonia Criteria Tables

Freshwater Aquatic Life Standards for *total ammonia* (mg/L NH_3-N plus NH_4-N) are expressed as a function of pH and temperature. Because these formulas are non-linear in pH and temperature, the standard is the average of separate evaluations of the formulas reflective of the fluctuations of flow, pH, and temperature within the averaging period; it is not appropriate to apply the formula to average pH, temperature and flow.

Table 1.
pH-Dependent Values of the 1-Hour Average Ammonia Limit

pH	Salmonids Present
6.5	32.6
6.6	31.3
6.7	29.8
6.8	28.1
6.9	26.2
7.0	24.1
7.1	22.0
7.2	19.7
7.3	17.5
7.4	15.4
7.5	13.3
7.6	11.4
7.7	9.65
7.8	8.11
7.9	6.77
8.0	5.62
8.1	4.64
8.2	3.83
8.3	3.15
8.4	2.59
8.5	2.14
8.6	1.77
8.7	1.47
8.8	1.23
8.9	1.04
9.0	0.885

Table 2.
Temperature- and pH-Dependent Values of the 30-Day Average Ammonia Limit

30-Day Average Limit, mg N/L										
	Temperature, C									
pH	0	14	16	18	20	22	24	26	28	30
6.5	6.67	6.67	6.06	5.33	4.68	4.12	3.62	3.18	2.80	2.46
6.6	6.57	6.57	5.97	5.25	4.61	4.05	3.56	3.13	2.75	2.42
6.7	6.44	6.44	5.86	5.15	4.52	3.98	3.50	3.07	2.70	2.37
6.8	6.29	6.29	5.72	5.03	4.42	3.89	3.42	3.00	2.64	2.32
6.9	6.12	6.12	5.56	4.89	4.30	3.78	3.32	2.92	2.57	2.25
7.0	5.91	5.91	5.37	4.72	4.15	3.65	3.21	2.82	2.48	2.18
7.1	5.67	5.67	5.15	4.53	3.98	3.50	3.08	2.70	2.38	2.09
7.2	5.39	5.39	4.90	4.31	3.78	3.33	2.92	2.57	2.26	1.99
7.3	5.08	5.08	4.61	4.06	3.57	3.13	2.76	2.42	2.13	1.87
7.4	4.73	4.73	4.30	3.78	3.32	2.92	2.57	2.26	1.98	1.74
7.5	4.36	4.36	3.97	3.49	3.06	2.69	2.37	2.08	1.83	1.61
7.6	3.98	3.98	3.61	3.18	2.79	2.45	2.16	1.90	1.67	1.47
7.7	3.58	3.58	3.25	2.86	2.51	2.21	1.94	1.71	1.50	1.32
7.8	3.18	3.18	2.89	2.54	2.23	1.96	1.73	1.52	1.33	1.17
7.9	2.80	2.80	2.54	2.24	1.96	1.73	1.52	1.33	1.17	1.03
8.0	2.43	2.43	2.21	1.94	1.71	1.50	1.32	1.16	1.02	0.897
8.1	2.10	2.10	1.91	1.68	1.47	1.29	1.14	1.00	0.879	0.773
8.2	1.79	1.79	1.63	1.43	1.26	1.11	0.973	0.855	0.752	0.661
8.3	1.52	1.52	1.39	1.22	1.07	0.941	0.827	0.727	0.639	0.562
8.4	1.29	1.29	1.17	1.03	0.906	0.796	0.700	0.615	0.541	0.475
8.5	1.09	1.09	0.990	0.870	0.765	0.672	0.591	0.520	0.457	0.401
8.6	0.920	0.920	0.836	0.735	0.646	0.568	0.499	0.439	0.386	0.339
8.7	0.778	0.778	0.707	0.622	0.547	0.480	0.422	0.371	0.326	0.287
8.8	0.661	0.661	0.601	0.528	0.464	0.408	0.359	0.315	0.277	0.244
8.9	0.565	0.565	0.513	0.451	0.397	0.349	0.306	0.269	0.237	0.208
9.0	0.486	0.486	0.442	0.389	0.342	0.300	0.264	0.232	0.204	0.179

For temperature (T) and pH conditions not expressed in Tables 1 and 2 above, ammonia toxicity limits can be calculated using the following equations:

1. Acute Criteria (CMC)
   a. The one-hour average concentration of total ammonia nitrogen (in mg N/L) cannot exceed the acute criterion as follows.

$$CMC = \frac{0.275}{1 + 10^{7.204\text{-pH}}} + \frac{39.0}{1 + 10^{\text{pH-}7.204}}$$

2. Chronic Criteria (CCC)
   a. The thirty-day average concentration of total ammonia nitrogen (in mg N/L) cannot exceed the chronic criterion calculated as follows.

$$CCC = \left(\frac{0.0577}{1 + 10^{7.688-pH}} + \frac{2.487}{1 + 10^{pH-7.688}} \right) \text{ X MIN } (2.85, 1.45 \times 10^{0.028 \times (25-T)})$$

Note: In addition, the highest four-day average within the 30-day period should not exceed 2.5 times the CCC.

1.3.2. Self-Monitoring Requirements

Outfall 001: At a minimum, upon the effective date of this Permit, the following constituents shall be monitored at the frequency and with the type of measurement indicated; samples or measurements shall be representative of the volume and nature of the monitored discharge. All effluent monitoring samples shall be taken at the discharge point near the west corner of cell three, at the earliest possible point in the discharge line after the Parshall flume located prior to the discharge into Lame Deer Creek. If no discharge occurs during the entire monitoring period, it shall be stated on the Discharge Monitoring Report (DMR) that no discharge or overflow occurred.

Effluent Characteristic a/	Frequency	Sample Type b/
Flow, MGD c/	Daily	Instantaneous
BOD_5, mg/L	Monthly	Grab
Total Suspended Solids, mg/L	Monthly	Grab
pH, standard units	Weekly d/	Instantaneous
Dissolved Oxygen, mg/L	Monthly	Grab
Fecal Coliform, no./100 ml. e/	5 per month f/	Grab
E. coli, no./100 ml.	5 per month f/	Grab
Oil and Grease (visible sheen) g/	Weekly	Visual Observation
Oil and Grease, mg/L g /	Upon observation of visible sheen	Grab
Temperature, ºC	Weekly d/	Instantaneous
Total Residual Chlorine, mg/L h/	Weekly	Grab
Ammonia, as N, mg/L	Monthly d/	Grab
Total Phosphorous, µg/L	Quarterly	Grab
Total Nitrogen, µg/L	Quarterly	Grab
Total Dissolved Solids, mg/L	Quarterly	Grab

a/ All monitored data shall be recorded in a daily log (paper or electronic). If no discharge occurs on any one day, zero (0) shall be recorded in the daily log for that day for flow and for all other parameters required to be monitored. If the required data are not entered in the daily log on a day that a discharge occurs, it will be assumed that the required monitoring was not performed. If no

discharge occurs during the reporting period, the appropriate "No Discharge" code shall be reported on the DMR.

b/ See Definitions, Section 1.1, for definition of terms.

c/ Flow monitoring shall be daily. Flow measurements of effluent volume shall be made in such a manner that the Permittee can affirmatively demonstrate that representative values are being obtained. The average flow rate (in million gallons per day) during the reporting period and the maximum flow rate observed (in mgd) shall be reported.

d/ Monitoring for pH and temperature must be conducted at the same time the sample to be analyzed for ammonia is taken.

e/ Monitoring for fecal coliform is required from March 1 to October 31 only.

f/ Samples shall be equally spaced over a calendar month.

g/ If a visible sheen is detected, a grab sample shall be taken immediately and analyzed in accordance with the requirements of 40 CFR Part 136. The concentration of oil and grease shall not exceed 10 mg/L in any sample.

h/ Monitoring for Total Residual Chlorine is required only if chlorine is used as part of the disinfection process.

1.3.3. Ambient Monitoring Requirements – Outfall 001R

Effluent Characteristic a/	Frequency	Sample Type b/
pH, standard units	Monthly	Instantaneous
Temperature, ºC	Monthly	Instantaneous
Time sample collected	Monthly	Instantaneous
Date sample collected	Monthly	Instantaneous

a/ All monitored data shall be recorded in a daily log (paper or electronic). If no discharge occurs on any one day, zero (0) shall be recorded in the daily log for that day for flow and for all other parameters required to be monitored. If the required data are not entered in the daily log on a day that a discharge occurs, it will be assumed that the required monitoring was not performed. If no discharge occurs during the reporting period, the appropriate "No Discharge" code shall be reported on the DMR.

b/ See Permit Definitions, section 1.1, for definition of terms.

1.3.4. Reporting Period

For the duration of this Permit, the discharger shall submit Discharge Monitoring Reports (DMRs) monthly as described in section 2.3.

1.3.5. Inspection Requirements

1.3.5.1. On at least a weekly basis, unless otherwise approved by the Permit issuing authority, the Permittee shall inspect its wastewater treatment facility, at a minimum, for the following:

1.3.5.1.1. Check to see if there is any leakage through the dikes;

1.3.4.1.2. Check to see if there are any animal burrows in the dike;

1.3.5.1.3. Check to see if there has been any excessive erosion of the dikes;

1.3.5.1.4. Check to see if there are any rooted plants, including weeds growing in the water;

1.3.5.1.5. Check to see if vegetation growth on the dikes needs mowing; and,

1.3.5.1.6. Determine if proper operation and maintenance procedures are being undertaken at the wastewater treatment facility.

1.3.5.2. The Permittee shall maintain a daily log in either paper or electronic format recording information obtained during the inspection. At a minimum, the log shall include the following:

1.3.5.2.1. Date and time of the inspection;

1.3.4.2.2. Name of the inspector(s);

1.3.5.2.3. The facility's discharge status;

1.3.5.2.4. The flow rate of the discharge if occurring;

1.3.5.2.5. Identification of operational problems and/or maintenance problems;

1.3.5.2.6. Recommendations, as appropriate, to remedy identified problems;

1.3.4.2.7. A brief description of any actions taken with regard to problems identified; and,

1.3.5.2.8. Other information, as appropriate.

The Permittee shall maintain the daily log in accordance with proper record-keeping procedures and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the Northern Cheyenne Tribe.

1.3.5.3. Problems identified during the inspection shall be addressed through proper operation and maintenance. (See Part 3.1 of this Permit.)

2. MONITORING, RECORDING AND REPORTING REQUIREMENTS

2.1. Representative Sampling: Samples taken in compliance with the monitoring requirements established under Part 1 shall be collected from the effluent stream prior to discharge into the receiving waters. Samples and measurements shall be representative of the volume and nature of the monitored discharge. Sludge samples shall be collected at a location representative of the quality of sludge immediately prior to use-disposal practice.

2.2. Monitoring Procedures: Monitoring must be conducted according to paragraph 5.10.4, unless other test procedures have been specified in this Permit. Sludge monitoring procedures shall be those specified in 40 CFR 503, or as specified in the Permit.

2.3. Reporting of Monitoring Results: Upon the effective date of this Permit, the Permittee must electronically report DMRs using NetDMR. Electronic submissions by permittees must be sent to the EPA Region 8 no later than the 28th of the month following the completed reporting period. The Permittee must sign and certify all electronic submissions in accordance with the requirements of Part 4.2 of this Permit ("Signatory Requirements"). NetDMR is accessed from the internet at https://netdmr.zendesk.com/home.

In addition, the Permittee must submit a copy of the DMR to the Northern Cheyenne tribe. Currently, the Permittee may submit a copy to the Tribe by one of three ways: 1. a paper copy may be mailed. 2. The email address may be added to the electronic submittal through NetDMR, or, 3. The Permittee may provide viewing rights through NetDMR.

Legible copies of all other reports required herein, shall be signed and certified in accordance with the Signatory Requirements (see Part 4), and submitted to the EPA Region 8 Policy, Information Management & Environmental Justice Program and the Northern Cheyenne Tribe Department of Environmental Protection and Natural Resources (DEPNR) at the addresses given below:

Original to: U.S. EPA, Region 8
(8ENF-PJ)
Attention: DMR Coordinator
1595 Wynkoop Street
Denver, Colorado 80202-1129

Copy to: Northern Cheyenne Tribe
Department of Environmental Protection and Natural Resources
P.O. Box 128
Lame Deer, Montana 59043

2.4. Records Contents: In addition to those requirements specified in paragraph 5.10.3, records of monitoring information shall include:

2.4.1. References and written procedures, when available, for the analytical techniques or methods used (5.10.3.5); and,

2.4.2. The results of such analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc., used to determine these results (5.10.3.6).

2.5. Twenty-four Hour Notice of Noncompliance Reporting. Reporting required by section 5.12.6 shall be made to the following offices:

2.5.1. The Permittee shall report any noncompliance which **may endanger health or the environment** as soon as possible, but no later than twenty-four (24) hours from the time the Permittee first became aware of the circumstances. The report shall be made to the EPA, Region 8, Site Assessment/Emergency Response Program at (303) 293-1788 and the Northern Cheyenne Tribe DEPNR at (406) 477-6506.

2.5.2. Occurrences of noncompliance noted at section 5.12.6.2 of this Permit shall be reported by telephone to the EPA, Region 8, NPDES Enforcement Unit at (800) 227-8917 (8:00 a.m. - 4:30 p.m. Mountain Time), or NPDES Program, EPA Region 8 Office of Water Protection,

Wastewater Unit at 866-457-2690) (8:00 a.m. - 4:30 p.m. Mountain Time) and the Tribe at (406) 477-6506 - (8:00 a.m. - 4:30 p.m. Mountain Time) by the first workday following the day the Permittee became aware of the circumstances.

2.5.3. A written submission of all reports shall also be provided to the U.S. EPA, Office of Enforcement, Compliance and Environmental Justice, and to the Tribe within five days of the time that the Permittee becomes aware of the circumstances. The written submission shall contain:

2.5.3.1. A description of the noncompliance and its cause;

2.5.3.2. The period of noncompliance, including exact dates and times;

2.5.3.3. The estimated time noncompliance is expected to continue if it has not been corrected; and,

2.5.3.4. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

2.5.4. The Director may waive the written report on a case-by-case basis for an occurrence of noncompliance listed under Part 5.12.6.2, if the incident has been orally reported in accordance with the requirements of Part 2.5.2.

2.5.5. Reports shall be submitted to the addresses in Part 2.3, Reporting of Monitoring Results.

3. COMPLIANCE RESPONSIBILITIES

3.1. Proper Operation and Maintenance: In addition to the operation and maintenance requirements outlined at 5.5, the Permittee shall operate, at a minimum, one complete set of each main line unit treatment process whether or not this process is needed to achieve Permit effluent compliance.

3.1.1 The Permittee shall, as soon as reasonable and practicable, but no later than six (6) months after the effective date of this Permit, do the following as part of the operation and maintenance program for the wastewater treatment facility:

3.1.1.1. Have a current O & M Manual(s) that describes the proper operational procedures and maintenance requirements of the wastewater treatment facility;

3.1.1.2. Have the O & M Manual(s) readily available to the operator of the wastewater treatment facility and require that the operator become familiar with the manual(s) and any updates;

3.1.1.3. Have a schedule(s) for routine operation and maintenance activities at the wastewater treatment facility; and,

3.1.1.4. Require the operator to perform the routine operation and maintenance requirements in accordance with the schedule(s).

3.1.2. The Permittee shall maintain a daily log, in either paper (bound notebook) or electronic format, containing a summary record of all operation and maintenance activities at the wastewater treatment facility. At a minimum, the log shall include the following information:

3.1.2.1. Date and time;

3.1.2.2 Name and title of person(s) making the log entry;

3.1.2.3. Name of the persons(s) performing the activity;

3.1.2.4. A brief description of the activity; and,

3.1.2.5. Other information, as appropriate.

The Permittee shall maintain the log in accordance with proper record-keeping procedures and shall make the log available for inspection, upon request, by authorized representatives of the U.S. Environmental Protection Agency or the Tribe.

3.2. Removed Substances: Collected screenings, grit, solids, sludge (including sewage sludge), or other pollutants removed in the course of treatment shall be buried or disposed in a manner consistent with all applicable federal and tribal regulations (e.g., 40 CFR Part 257, 40 CFR Part 258, 40 CFR Part 503). Sludge/digester supernatant and filter backwash shall not be directly blended with or enter either the final plant discharge and/or waters of the United States.

3.3. Notice of Bypass (See 5.13.3):

3.3.1. Anticipated bypass: If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass to the USEPA, Technical Enforcement Program, and to the Tribe.

3.3.2. Unanticipated bypass: The Permittee shall submit notice of an unanticipated bypass as required under Part 2.8, Twenty-four Hour Noncompliance Reporting, to the U.S. EPA, Technical Enforcement Program, and to the Tribe.

3.4. Industrial Waste Management (Minor POTWs in Indian Country)

3.4.1. The Permittee has the responsibility to protect the Publicly-Owned Treatment Works (POTW) from pollutants which would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.

3.4.2. Pretreatment Standards (40 CFR Section 403.5) developed pursuant to Section 307 of the Federal Clean Water Act (the Act) require that the Permittee shall not allow, under any circumstances, the introduction of the following pollutants to the POTW from any source of nondomestic discharge:

3.4.2.1. Any other pollutant which may cause Pass Through or Interference.

3.4.2.2. Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than sixty (60) degrees Centigrade (140 degrees Fahrenheit) using the test methods specified in 40 CFR Section 261.21;

3.4.2.3. Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such discharges;

3.4.2.4. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;

3.4.2.5. Any pollutant, including oxygen demanding pollutants (e.g., BOD), released in a discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;

3.4.2.6. Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds forty (40) degrees Centigrade (104 degrees Fahrenheit) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;

3.4.2.7. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through;

3.4.2.8. Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;

3.4.2.9. Any trucked or hauled pollutants, except at discharge points designated by the POTW; and

3.4.2.10. Any specific pollutant which exceeds a local limitation established by the Permittee in accordance with the requirements of 40 CFR Section 403.5(c) and (d).

3.4.3. For the POTWs covered by this Permit, the EPA presently is the Approval Authority for the Pretreatment Program and the mailing address for all reporting and notifications to the Approval Authority shall be: USEPA - Region 8, NPDES Enforcement Unit (8ENF-W-NP), 1595 Wynkoop Street, Denver, CO 80202-1129.

3.4.4. In addition to the general limitations expressed above, more specific Pretreatment Standards have been and will be promulgated for specific industrial categories under Section 307 of the Act (40 CFR Part 405 et. seq.).

3.4.5. The Permittee must notify the Approval Authority of any new introductions by new or existing industrial users or any substantial change in pollutants from any industrial user within sixty (60) days following the introduction or change. Such notice must identify:

3.4.5.1. Any new introduction of pollutants into the POTW from an industrial user which would be subject to Sections 301, 306, or 307 of the Act if it were directly discharging those pollutants; or,

3.4.5.2. Any substantial change in the volume or character of pollutants being introduced into the POTW by any industrial user;

3.4.5.3. For the purposes of this section, adequate notice shall include information on:

3.4.5.3.1. The identity of the industrial user;

3.4.5.3.2. The nature and concentration of pollutants in the discharge and the average and maximum flow of the discharge to be introduced into the POTW; and

3.4.5.3.3. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from or biosolids or sludge produced at such POTW.

3.4.5.4. For the purposes of this section, an industrial user shall include:

3.4.5.4.1. Any discharger subject to Categorical Pretreatment Standards under Section 307 of the Act and 40 CFR chapter I and subchapter N;

3.4.5.4.2. Any discharger which has a process wastewater flow of 25,000 gallons or more per day;

3.4.5.4.3. Any discharger contributing five percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant;

3.4.5.4.4. Any discharger who is designated by the Approval Authority as having a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirements;

3.4.6. At such time as a specific Pretreatment Standard or requirement becomes applicable to an industrial user of the Permittee, the Approval Authority may, as appropriate:

3.4.6.1. Amend the Permittee's NPDES discharge Permit to specify the additional pollutant(s) and corresponding effluent limitation(s) consistent with the applicable national Pretreatment Standards;

3.4.6.2. Require the Permittee to specify, by ordinance, order, or other enforceable means, the type of pollutant(s) and the maximum amount which may be discharged to the Permittee's POTW for treatment. Such requirement shall be imposed in a manner consistent with the program development requirements of the General Pretreatment Regulations at 40 CFR Part 403; and/or,

3.4.6.3. Require the Permittee to monitor its discharge for any pollutant which may likely be discharged from the Permittee's POTW, should the industrial user fail to properly pretreat its waste.

3.4.7. The Approval Authority retains, at all times, the right to take legal action against any source of nondomestic discharge, whether directly or indirectly controlled by the Permittee, for violations of a permit, order or similar enforceable mechanism issued by the Permittee, violations of any Pretreatment Standard or requirement, or for failure to discharge at an acceptable level under national standards issued by the EPA under 40 CFR, chapter I, subchapter N. In those cases where a NPDES permit violation has occurred because of the failure of the Permittee to properly develop and enforce Pretreatment Standards and requirements as necessary to protect the POTW, the Approval Authority shall hold the Permittee and/or industrial user responsible and may take legal action against the Permittee as well as the Industrial user(s) contributing to the Permit violation.

4. GENERAL REQUIREMENTS

4.1. Planned Changes: In addition to the requirements outlined at 5.12.1, the Permittee shall give the Director notice, at least 30 days prior to implementation, when there are any planned substantial changes to the existing sewage sludge facilities, the manner of its operation, or to current sewage sludge management practices of storage and disposal.

4.2. Signatory Requirements: All applications, reports or information submitted to the Director shall be signed and certified.

4.2.1. All permit applications shall be signed by either a principal executive officer or ranking elected official.

4.2.2. All reports required by the Permit and other information requested by the Director shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

4.2.2.1. The authorization is made in writing by a person described above and submitted to the Director; and,

4.2.2.2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

4.2.3. Changes to authorization: If an authorization under Part 4.2.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part 4.2.2 must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

4.2.4. Certification: Any person signing a document under this section shall make the following 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."

4.3. Penalties for Falsification of Reports: The Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

4.4. Availability of Reports: Except for data determined to be confidential under 40 CFR Part 2, Subpart B, all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the Director. As required by the Act, permit applications, permits and effluent data shall not be considered confidential.

4.5. Oil and Hazardous Substance Liability: Nothing in this Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under Section 311 of the Act.

4.6. Property Rights: The issuance of this Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, tribal or local laws or regulations.

4.7. Severability: The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit, shall not be affected thereby.

4.8. Transfers: This Permit may be automatically transferred to a new permittee if:

4.8.1. The current Permittee notifies the Director at least 30 days in advance of the proposed transfer date;

4.8.2. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and,

4.8.3. The Director does not notify the existing Permittee and the proposed new permittee of his or her intent to modify, or revoke and reissue the Permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part 4.8.2.

4.9. Permittees in Indian Country. The EPA is issuing this Permit pursuant to the Agency's authority to implement the Clean Water Act NPDES program in Indian Country, as defined at 18 U.S.C. § 1151.

4.10. Reopener Provision: This Permit may be reopened and modified (following proper administrative procedures) to include the appropriate effluent limitations (and compliance schedule, if necessary), or other appropriate requirements if one or more of the following events occurs:

4.10.1. Water Quality Standards: The water quality standards of the receiving water(s) to which the Permittee discharges are modified in such a manner as to require different effluent limits than contained in this Permit.

4.10.2. Wasteload Allocation: A wasteload allocation is developed and approved by the Tribe and/or the EPA for incorporation in this Permit.

4.10.3. Water Quality Management Plan: A revision to the current water quality management plan is approved and adopted which calls for different effluent limitations than contained in this Permit.

4.11. Toxicity Limitation-Reopener Provision: This Permit may be reopened and modified (following proper administrative procedures) to include whole effluent toxicity limitations if whole effluent toxicity is detected in the discharge.

5. ADDITIONAL STANDARD CONDITIONS

5.1. Duty to comply: The Permittee must comply with all conditions of this Permit. Any Permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

5.1.1. The Permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the Permit has not yet been modified to incorporate the requirement.

5.1.2. The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $53,484 per day for each violation. The Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

5.1.3. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $21,393 per violation, with the maximum amount of any Class I penalty assessed not to exceed $53,484. Penalties for Class II

violations are not to exceed $21,393 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $267,415.

5.1.4. The Federal Civil Penalties Inflation Adjustment Act of 1990, as amended by the Debt Collection Improvement Act of 1996 and the Federal Civil Penalties Inflation Adjustment Act Improvement Act of 2015, requires the EPA to adjust the civil monetary penalties for inflation on a periodic basis. The EPA has adjusted its civil monetary penalties seven times since 1996, most recently on January 15, 2018 (83 Fed. Reg. 1190-1194). The penalties noted in Parts 5.1.2 and 5.1.3 are the civil and criminal penalties for violations of the Act (including permit conditions) as of January 15, 2018.

5.2. Duty to reapply: If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the Permittee must apply for and obtain a new permit.

5.3. Need to halt or reduce activity not a defense: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

5.4. Duty to mitigate: The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Permit which has a reasonable likelihood of adversely affecting human health or the environment.

5.5. Proper operation and maintenance: The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

5.6. Permit actions: This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Permit condition.

5.7. Property rights: This Permit does not convey any property rights of any sort, or any exclusive privilege.

5.8. Duty to provide information: The Permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit or to determine compliance with this Permit. The Permittee shall also furnish to the Director upon request, copies of records required to be kept by this Permit.

5.9. Inspection and entry: The Permittee shall allow the Director, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

5.9.1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

5.9.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

5.9.3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

5.9.4. Sample or monitor at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

5.10. Monitoring and records:

5.10.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

5.10.2. Except for records of monitoring information required by this Permit related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

5.10.3. Records of monitoring information shall include:

5.10.3.1. The date, exact place, and time of sampling or measurements;

5.10.3.2. The individual(s) who performed the sampling or measurements;

5.10.3.3. The date(s) analyses were performed;

5.10.3.4. The individual(s) who performed the analyses;

5.10.3.5. The analytical techniques or methods used; and

5.10.3.6. The results of such analyses.

5.10.4. Monitoring must be conducted according to test procedures approved under 40 C.F.R. Part 136, unless other test procedures have been specified in this Permit. Sludge monitoring procedures shall be those specified in 40 C.F.R. 503, or as specified in the Permit.

5.10.5. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

5.11. Signatory requirement:

5.11.1. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22)

5.11.2. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

5.12. Reporting requirements:

5.12.1. Planned changes. The Permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the Permitted facility. Notice is required only when:

5.12.1.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

5.12.1.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the Permit, nor to notification requirements under 40 CFR 122.42(a)(1).

5.12.1.3. The alteration or addition results in a significant change in the Permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of Permit conditions that are different from or absent in the existing Permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

5.12.2. Anticipated noncompliance. The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with Permit requirements.

5.12.3. Transfers. This Permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory.)

5.12.4. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this Permit.

5.12.4.1 Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

5.12.4.2. If the Permittee monitors any pollutant more frequently than required by the Permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Director.

5.12.4.3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the Permit.

5.12.5. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date.

5.12.6. Twenty-four hour reporting.

5.12.6.1. The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A report shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times), and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (combined sewer overflows, sanitary sewer overflows, or bypass events), type of sewer overflow structure (e.g., manhole, combine sewer overflow outfall), discharge volumes untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

5.12.6.2. The following shall be included as information which must be reported within 24 hours under this paragraph.

5.12.6.2.1. Any unanticipated bypass which exceeds any effluent limitation in the Permit. (See 40 CFR 122.41(g).

5.12.6.2.2. Any upset which exceeds any effluent limitation in the Permit.

5.12.6.2.3. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the Permit to be reported within 24 hours. (See 40 CFR122.44(g).)

5.12.6.3. The Director may waive the written report on a case-by-case basis for reports under paragraph 5.12.2.6 if the oral report has been received within 24 hours.

5.12.7. Other noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs 5.12.4, .5, and .6, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 5.12.6. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in paragraph 5.12.6 and the applicable required data in appendix A to 40 CFR part 127. As of December 21, 2020 all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to electronically submit reports related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section by a particular permit or if required to do so by state law. The Director may also require permittees to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section.

5.12.8. Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

5.12.9. Identification of the initial recipient for NPDES electronic reporting data. The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in appendix A to 40 CFR part 127) to the appropriate initial recipient, as determined by the EPA, and as defined in 40 CFR 127.2(b). The EPA will identify and publish the list of initial recipients on its Web site and in the Federal Register, by state and by NPDES data group [see 40 CFR 127.2(c)]. The EPA will update and maintain this listing.

5.13. Bypass:

5.13.1. Definitions.

5.13.1.1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

5.13.1.2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

5.13.2. Bypass not exceeding limitations. The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 5.13.3 and 5.13.4.

5.13.3. Notice

5.13.3.1. Anticipated bypass. If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass. As of December 21, 2020 all notices submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

5.13.3.2. Unanticipated bypass. The Permittee shall submit notice of an unanticipated bypass as required in paragraph 5.12.6 (24-hour notice). As of December 21, 2020 all notices submitted in compliance with this section must be submitted electronically by the Permittee to the Director or initial recipient, as defined in 40 CFR 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D to part 3), 40 CFR 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, permittees may be required to report electronically if specified by a particular permit or if required to do so by state law.

5.13.4. Prohibition of bypass.

5.13.4.1. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

5.13.4.1.1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

5.13.4.1.2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

5.13.4.1.3. The Permittee submitted notices as required under paragraph 5.13.3.

5.13.4.2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 5.13.4.1.

5.14. Upset:

5.14.1. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

5.14.2. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 5.14.3 are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

5.14.3. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

5.14.3.1. An upset occurred and that the Permittee can identify the cause(s) of the upset;

5.14.3.2. The permitted facility was at the time being properly operated; and

5.14.3.3. The Permittee submitted notice of the upset as required in paragraph 5.12.6.2 (24-hour notice).

5.14.3.4. The Permittee complied with any remedial measures required under paragraph 5.4.

5.14.4. Burden of proof. In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.