October 21, 2024

Lorena Vaughn, Regional Hearing Clerk (6ORC)
U.S. Environmental Protection Agency, Region 6
1201 Elm Street, Suite 500
Dallas, Texas 75270-2102

Ms Vaughn:

Please see my attached comments on pending permit WQ0005462000 and Docket Number CWA-06-2024-1768 for SpaceX deluge operations in Cameron County. Thank you for your consideration of these critical issues.

Regards,

Eric Roesch, MS

1. Starbase is polluting with Process Water, which TCEQ has incorrectly characterized as "Non-Process" water.

The EPA proposed Administrative Order, dated 10 September 2024 states that "The deluge water discharged to the surrounding wetlands is considered an **industrial process wastewater**.[1]"

In the July 2024 TCEQ inspection report associated with the agency's enforcement action, the agency notes that the pending wastewater permit WQ0005462000 is for "the discharge of **non-process deluge system water** that is utilized during launch operations[2]."

Additionally, the proposed draft permit and technical review package indicate in the "plain language summary" section that the discharge is for "**non-process** deluge system water that is utilized during launch operations."

This discrepancy is notable because it appears to be the entire basis for avoiding anti-Backsliding and "new source" New Source Performance Standards (NSPS) provisions in the Clean Water Act.

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[1] CWA-06-2024-1768, item 12
https://www.epa.gov/tx/proposed-administrative-penalty-order-against-space-explorations-technologies-corp-spacex-clean

[2] TCEQ Open Records document, investigation report 1995473

Non-process wastewater in Texas, as summarized in 30 TAC and on the EPA's website falls into several categories:

1. Industrial reclaimed water
2. Non-contact cooling water
3. Once-through cooling water

SpaceX's discharge meets none of these regulatory definitions.

Deluge Water Is Not Industrial Reclaimed Water

30 TAC 210 specifies several types of water that may be reclaimed and reused as "Industrial Reclaimed Water." Putting aside that significant quantities are never "reclaimed" and are directly discharged into surface waters, none of the listed exemptions apply:

> (1) air conditioner condensate; compressor condensate; steam condensate; or condensate that forms externally on steam lines and is not process wastewater;
> (2) washwater from washing whole fruits and vegetables;
> (3) non-contact cooling water;
> (4) once through cooling water;
> (5) water treatment filter backwash;
> (6) water from routine external washing of buildings, conducted without the use of detergents or other chemicals;
> (7) water from routine washing of pavement conducted without the use of detergents or other chemicals and where spills or leaks of toxic or hazardous waste have not occurred (unless spilled material has been removed);
> (8) cooling tower blowdown with a total dissolved solids concentration less than 2,000 milligrams per liter; or
> (9) wastewater with measured effluent concentrations at or below threshold levels listed in the figure contained in this paragraph that is not a waste source listed in §210.54(a) of this title

(1),(2),(4),(5),(6),(7), and (8) clearly fall outside of the specified and narrow definitions.

- SpaceX's water cannot be non-contact (1) cooling water, because the water contacts raw materials as well as products of combustion and is used for "dust and fire suppression" per the TCEQ permit application. Video evidence also indicates deluge water from the system comes into contact with LNG (liquid methane) and Liquid Oxygen that has been released during pre launch operations
- Deluge water does not also meet the requirements for inclusion under exemption (9) because the facility has submitted samples that exceed Nickel, Selenium, Zinc and Barium levels specified in 30 TAC 210.34(a)(9)

Deluge water meets the statutory definition of "process wastewater" in the CWA and in 30 TAC

At the bare minimum, EPA and TCEQ must agree as to whether SpaceX's deluge water is "process" or "non-process" wastewater. Legal precedent and a plain reading of the definition of "process wastewater" appears to contradict TCEQ and SpaceX's assumption that the wastewater is "non-process"

2. TCEQ already knows how to permit rocket engine cooling water, as evidenced by a Blue Origin water permit issued in 2018

There are no categorical requirements for minimum treatment standards under 40 CFR 400-471 for rocket deluge systems; this avoids industry-specific discharge standards. Developing best practices under 40 CFR 125 must be based on engineering and the "best judgement" of the NPDES permitting authorities alone.

However novel and uncommon "rocket launch water" may be for a regulatory agency, the TCEQ cannot in good conscience scratch its head in confusion about some sort of new issue it has not dealt with in the past.

In 2018, TCEQ issued a TPDES permit for a rocket launch facility operated by the rocket company Blue Origin. The agency also issued a non-process wastewater permit (WQ0005241000) for Blue Origin's operations. At the Blue Origin launch facility, TCEQ created a novel (and perfectly reasonable) definition for "Non-contact engine cooling water" specifically to address the unique nature of rocket launch operations.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the disposal of non-contact engine cooling water (*1) at a yearly average flow not to exceed 0.025915 million gallons per year by evaporation.

Final effluent limitations are established in the draft permit as follows:

Pollutant	Daily Average	Daily Maximum
Flow, MGD	Record	Record
Oil and Grease, mg/L	N/A	Record
Total Dissolved Solids, mg/L	N/A	Record
pH, SU	6.0 minimum	9.0

(*1) The term non-contact engine cooling water is defined as water that provides cooling for the flame deflector and the concrete floor of the test stand. The water is not used to cool the engines and does not contact the engines.

Blue Origin's facility had a discreet, segregated plate between the water stream used for cooling and the chemical combustion reaction of the rocket engine. This is a literal (and, again, reasonable) interpretation of the definition of "non-process wastewater" and "non-contact cooling water" in the Clean Water Act and Texas Statute. By defining the limitations of "non-contact engine cooling water" to specify that TCEQ only considered deluge wastewater to

be "non process" if it met the standard set by Blue Origin (eg a plate with physical separation), TCEQ has already shown favoritism towards SpaceX as well as a willingness to backslide on previous applicability determinations, which is disallowed under the NPDES program.

SpaceX's deluge system, in contrast to Blue Origin's 2018 authorization, involves direct contact with a rocket plume, in addition to ablated metal and dust, as admitted by SpaceX in various NEPA documents[3]. The idea that SpaceX's waste stream would constitute a non-process waste simply defies any sort of reasonable interpretation of the statute, both in writing and in practice.

Further, Blue Origin collected and treated 100% of the "non-contact" wastewater, as demanded in the permit itself. TCEQ's draft permit for SpaceX, in stark contrast, allows direct discharge of process wastewater directly into surface waters, with some water directly bypassing even simple settling basin treatments. This is a wildly divergent treatment of two operations under identical SIC and NAICS codes, with the agency seemingly approving less stringent conditions for an operation (SpaceX) that generates significantly more waste and a greater impact to the natural environment and waters of the United States.

3. SpaceX considers Deluge Water to be "process wastewater" at its own facilities in Florida

As evidenced above, SpaceX and TCEQ's determination that rocket deluge water is "non-process wastewater" defies any reasonable regulatory definition or legal precedent. In fact, this determination appears to be driven exclusively by SpaceX's demand for a quick and painless permitting process. This not only represents a clear circumvention of new source requirements for direct dischargers under 40 CFR 125, but it is a direct contradiction to what other regulatory agencies and *SpaceX itself* have claimed regarding point source pollution under NPDES permitting.

SpaceX submitted a modification and renewal permit application to the Florida Department of Environmental Protection (FDEP) in 2019 to manage the treatment of deluge water from Falcon9 and Starship launches at the NASA 39-A launch facility. In Form 1 of the permit application, SpaceX indicates that wastewater from these activities constitutes a "process wastewater" that will be disposed to groundwater via Land Application. In contrast, the permit application indicates that no "non-process" wastewater will be treated on-site.

If Starship and Falcon 9 deluge waste streams are both "process wastewaters" in Florida, it defies logic that Starship water in Texas would somehow be "non-process" in nature, given that this definition is dictated at the federal level under the Clean Water Act.

However, if we must humor painful SpaceX legal contortions to avoid properly complying with the law when it's convenient for the company, it is only fair to discuss how Starship launches in Texas are unique from combined Falcon 9/Starship ops in Florida. These theoretical legal

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[3] https://www.faa.gov/media/72816

arguments fall under two categories: that the fuel used for Starship in Texas is unique or that the deluge system is unique.

WASTEWATER FACILITY OR ACTIVITY PERMIT APPLICATION FORM 1 GENERAL INFORMATION

I IDENTIFICATION NUMBER:

Facility ID IWWP No. FLA010307

II CHARACTERISTICS:

INSTRUCTIONS: Complete the questions below to determine whether you need to submit any permit application forms to the Department of Environmental Protection. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the blank in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements. See Section B of the instructions. See also, Section C of the instructions for definitions of the terms used here.

SPECIFIC QUESTIONS	YES	NO	FORM ATTACHED
A. Is this facility a domestic wastewater facility which results in a discharge to surface or ground waters?		X	
B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters?		X	
C. Does or will this facility (other than those describe in A. or B.) discharge process wastewater, or non-process wastewater regulated by effluent guidelines or new source performance standards, to surface waters?		X	
D. Does or will this facility (other than those described in A. or B.) discharge process wastewater to ground waters?	X		X
E. Does or will this facility discharge non-process wastewater, not regulated by effluent guidelines or new source performance standards, to surface waters?		X	
F. Does or will this facility discharge non-process wastewater to ground waters?		X	
G. Does or will this facility discharge stormwater associated with industrial activity to surface waters?		X	
H. Is this facility a non-discharging/closed loop recycle system?		X	
I. Is this facility a public water system whose primary purpose is the production of potable water for public consumption and which discharges demineralization concentrate to surface water or groundwater?		X	

SpaceX 2019 Pad 30A Permit application, Florida.

1. *Argument 1: Starship uses Liquid Methane, while Falcon rockets use kerosene.*

   This argument is absurd because SpaceX itself does not seek special treatment of liquid methane/oxygen (LCH4/LOX) launches in Florida. Both wastewaters (from Falcon and Starship) are treated as “process wastewaters.” Further, Blue Origin is also seeking authorization to treat “process wastewater” from deluge operations at NASA for its New

Glenn rocket (see FDEP permit application FLAB07454-001-IW8D). Like Starship, New Glenn uses LCH4/LOX as a fuel source.

In a water pollution context, the primary chemical difference between using a fossil fuel gas (methane) and a fossil fuel liquid (kerosene) is that at ambient conditions, kerosene will readily and clearly pollute water, as methane is not a liquid as standard temperature and pressure.

While the presence of kerosene in operations presents an obvious increased risk of oil and grease discharges, these discharge and control requirements would be determined at the back end when considering site-specific control and monitoring measures. The presence of liquid versus gaseous fuel would impact a portion of the expected pollution to receiving waters; there is no doubt that a Kerosene launch system poses an additional risk to the environment.

That said, the determination of a "process wastewater" under the Clean Water Act occurs prior to these control and discharge requirements. Process water is a determination of the "process" and not just one specific chemical. By TCEQ and SpaceX's own admission, ablated metals, dust, heat, and combustion products from Starship launches are added to deluge water as a function of the water cooling the rocket and suppressing fire and dust. SpaceX admits to this in its own TCEQ permit application.

2. *Argument 2: The showerhead deluge system in Texas is different from a conventional launch pad deluge system.*

The mechanism for water spray is unique for the Texas SpaceX facility in many ways. Deluge water sprays up and out in Texas, while conventional water deluge systems (also used at other SpaceX sites) flood an enclosed channel or trench. This is a silly argument of semantics.

As mentioned in section 2 above, TCEQ made this abundantly clear when the agency took clear steps to define why Blue Origin's Texas launch facility generated "non-process" water that was explicitly defined as "non-contact cooling water" under Texas Water Code. Both a traditional "flooding" deluge system and SpaceX's "showerhead" design in Texas use the direct contact of water to a flame which represents a clear "process" use as defined in the Clean Water Act.

A further absurdity is that a traditional flooding deluge system creates such a significant volume of water underneath the rocket during ignition as to prevent the heat and energy from the rocket plume from ablating or deteriorating the underlying surface (typically heat-resistant concrete). In contrast, Starbase's showerhead uses high-pressure jet streams of water to control "flame," "energy," "heat," and "dust."

It is *because* Starbase's system doesn't generate a dense water column under the rocket that the engine ablates metal into water-soluble particulates during every launch. Therefore, the showerhead design creates an environment that generates ***more pollutants, not less!*** The very idea, therefore, that a traditional flood deluge system would be a "process" point source and Starbase's showerhead would be a "non-process" source is beyond absurd and defies scientific reality to a stunning degree.

4. Direct Discharges that bypass control in Texas must be covered under a General Permit or be classified as a "non-process" wastewater. Neither applies to SpaceX

Because SpaceX's water is not a "non-process" wastewater, as covered above, the only other exemption SpaceX can use to get out of NSPS provisions (which demand the more stringent of control method technology and endpoint toxicity) and discharge directly to WOTUS is to claim coverage under a general permit. Clearly, seeing as (1) SpaceX is not claiming general permit coverage here and (2) there are no TCEQ standard permits that could be applied to this facility by SIC code or permitted activity, the facility must be treated as a new facility and is subject to technology based standards under section 306 of the CWA.

5. New facilities that are Direct Dischargers into Surface Waters are subject to NSPS

Given the facility is a "new direct discharger" as defined in 40 CFR 122, it is automatically subject to NSPS standards[4]. The facility is not subject to any of the categorical effluent standards based on SIC code but is however subject to Technology-Based Effluent Limitations (TBEL) via BPJ review[5] :

Industries and/or Pollutants not Specifically Regulated by Effluent Guidelines

For direct dischargers, the permit writer utilizes best professional judgment (BPJ) to establish technology-based limits or determine other appropriate means to control its discharge.

- Refer to Chapter 5 ("Technology-Based Effluent Limitations") of the NPDES Permit Writers' Manual

For indirect dischargers, the state or local regulatory agency develops local limits, either technology-based or other appropriate means to control the discharge.

- Refer to the Local Limits Development Guidance

[4] https://www.epa.gov/eg/learn-about-effluent-guidelines
[5] https://www.epa.gov/eg/learn-about-effluent-guidelines#not-specific-reg

Referencing the NPDES permit writer[6] manual, the guidance is clear:

> ***When developing TBELs for industrial (non-POTW) facilities, the permit writer must consider all applicable technology standards and requirements for all pollutants discharged.***

This is where the problem starts for TCEQ. The agency forgot to make an available technology based determination of facility operations. TCEQ instead skipped right to risk and impact on receiving waters.

Technology-based Effluent Limitations are independent of impact determination and when comparing Impact and Technology standards, NPDES demands that the more stringent of the two standards(toxic endpoint and technology derived control) be applied.

The Technology required is at minimum a settling pond and pH treatment

A review of all issued NSPS permits at major launch sites in the US (Kennedy Space Center - Florida, Wallops Island - Virginia, and Vanderberg AFB - California) reveals that every launch pad with a water deluge system requires collection and capture of wastewater in an engineered pond. At Kennedy Space Center and Vanderberg, water is disposed of by land application or discharged to a WWTP.

For example, the Wallops Facility in NASA (VA0024457) has enforceable limits for Rocket Deluge process wastewater that include Precipitation volume and Total Suspended solids:

Limit Type Description	Parameter Description	Monitoring Location	Season Num	Limit Begin Date	Limit End Date	Ch Lim
Enforceable	Petrol hydrocarbons, total recoverable	Effluent Gross	0	01-MAY-2020	30-APR-2025	
Enforceable	pH	Effluent Gross	0	01-MAY-2020	30-APR-2025	
Enforceable	pH exchange [su]	Effluent Gross	0	01-MAY-2020	30-APR-2025	
Enforceable	Precipitation volume	Effluent Gross	0	01-MAY-2020	30-APR-2025	
Enforceable	Solids, total suspended	Effluent Gross	0	01-MAY-2020	30-APR-2025	

[6] https://www.epa.gov/sites/default/files/2015-09/documents/pwm_2010.pdf

Likewise, the Land Disposal Process Wastewater permit for SpaceX's own operations at Pad 39A (KSC) in Florida (Permit FLA010307) has limits at groundwater monitoring wells:

6. The following parameters shall be analyzed for each monitoring well identified in Permit Condition III.5.

Parameter	Compliance Well Limit	Units	Sample Type	Monitoring Frequency
Water Level Relative to NGVD	Report	ft	In Situ	Annually
Aluminum, Total Recoverable	0.2	mg/L	Grab	Annually
Manganese, Total Recoverable	0.05	mg/L	Grab	Annually
Petrol Hydrocarbons,Total Recoverable	Report	mg/L	Grab	Annually
Solids, Total Dissolved (TDS)	500	mg/L	Grab	Annually
Zinc, Total Recoverable	5	mg/L	Grab	Annually
Turbidity	Report	NTU	Grab	Annually

In stark contrast, TCEQ's proposed permit allows SpaceX to discharge directly to surface waters, completely bypassing control, and with fewer effluent standards. This is clear degradation of the intent of the Clean Water Act, as a national standard, and backsliding on reasonable requirements applicable to the rocket launch industry.

6. SpaceX's wastewater that bypasses the pond exceeds established minimum control standards

It would be hard to tell what was going on with this permit application if there wasn't abundant video evidence showing that the company has knowingly and deliberately misled regulators about the facility.

All four of the water samples provided to TCEQ (in July-August 2023 and May-June 2024) were from the wastewater pond, several hours after the water was discharged. Thus, gravity-settling treatment would have already occurred. The permit application and the proposed permit treat direct discharge as a triviality instead of a bypass of claimed control, which is directly prohibited in the Act and in NPDES requirements.

The pending TCEQ Administrative Order requires SpaceX to test water that runs off pad in order to finalize permitting requirements, which is odd because SpaceX already tested this sheetflow outfall. We know this because the company provided data to the FAA during the November 2023[7] NEPA reevaluation and again in a motion in a recent lawsuit filed by SaveRVG.[8]

When considering "bypasses" to control systems, we can reference 30 TAC §305.535(d), which specifies that Total Suspend Solids shall not exceed 30 mg/L (30 day basis) or 45 mg/L (7 day basis).

[7] https://www.faa.gov/media/72816

[8] Case 1:24-cv-00148 Document 8-21 Filed on 10/11/24 in TXSD

Using at minimum the criteria for POTW to determine an acceptable effluent for bypass, a problem arises:

Date	Off Pad TSS (mg/L)	Wastewater Pond TSS (mg/L)
7/28/2023	3970	223
8/6/2023	370	34 ✔
8/18/2023	208	49
8/25/2023	34.9	15.5 ✔
5/29/2024	49.9	7.5 ✔
6/6/2024	724	7.1 ✔
6/27/2024	**Applied for Permit**	
7/15/2024	724	19

✔ = submitted with application

Red - Above Limit Green - Below Limit

Out of 12 samples collected from the treatment pond and off-pad runoff during the relevant periods, TSS levels exceeded the 45 mg/L standard seven times. Four out of the five "non-exceeding" samples were the only lab-tested data provided by SpaceX during the technical review and drafting periods.

While acknowledging that Starbase's deluge system is not a POTW, it is a direct discharger (a fact the Commission seems to have sidestepped when looking at off pad flow) and cherry picked data included in a permit application certainly begs the question of why SpaceX is being allowed to discharge water that would be considered a violation if it were from any other industrial source the Commission issues permits to all the time.

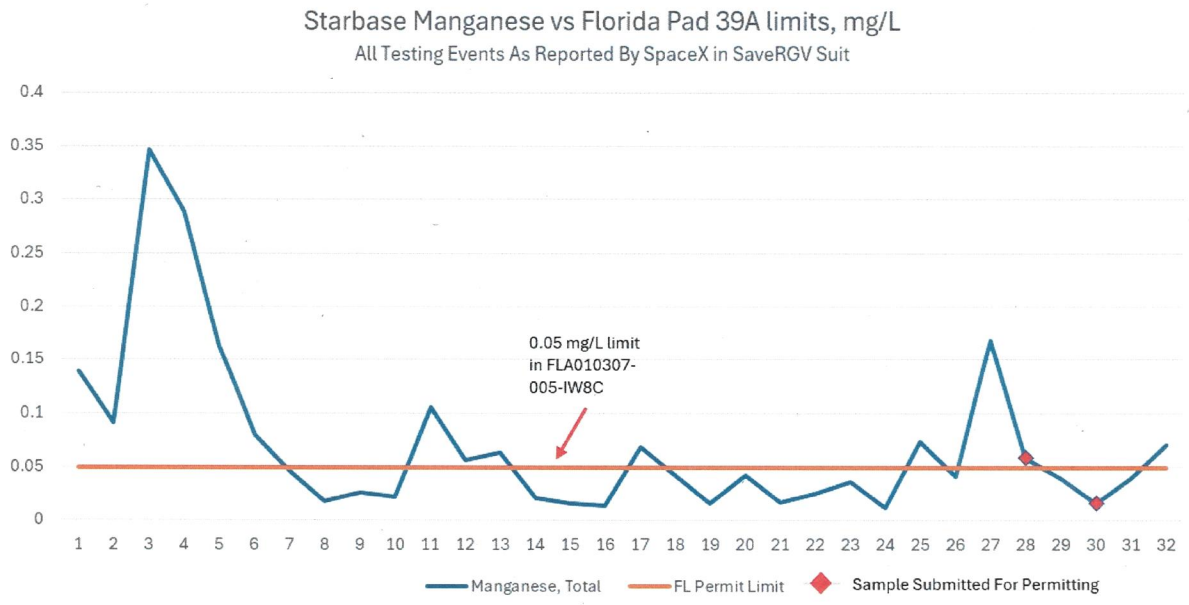
7. TCEQ Based its decision to skip completing a Technology-Based Limitation based on incomplete information

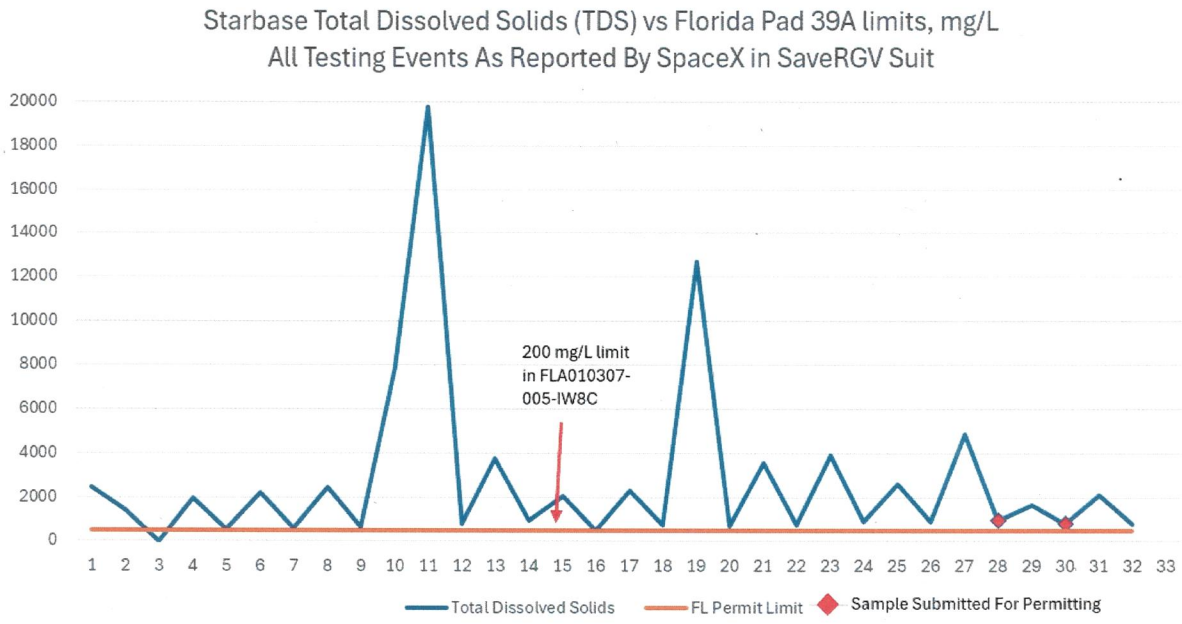
As noted in the Permit Statement of basis, TCEQ consciously decided to forego completing any TBEL analysis "Based on the presumption of the quality of the other contributing waste streams being consistent with the quality of stormwater runoff of the facility."

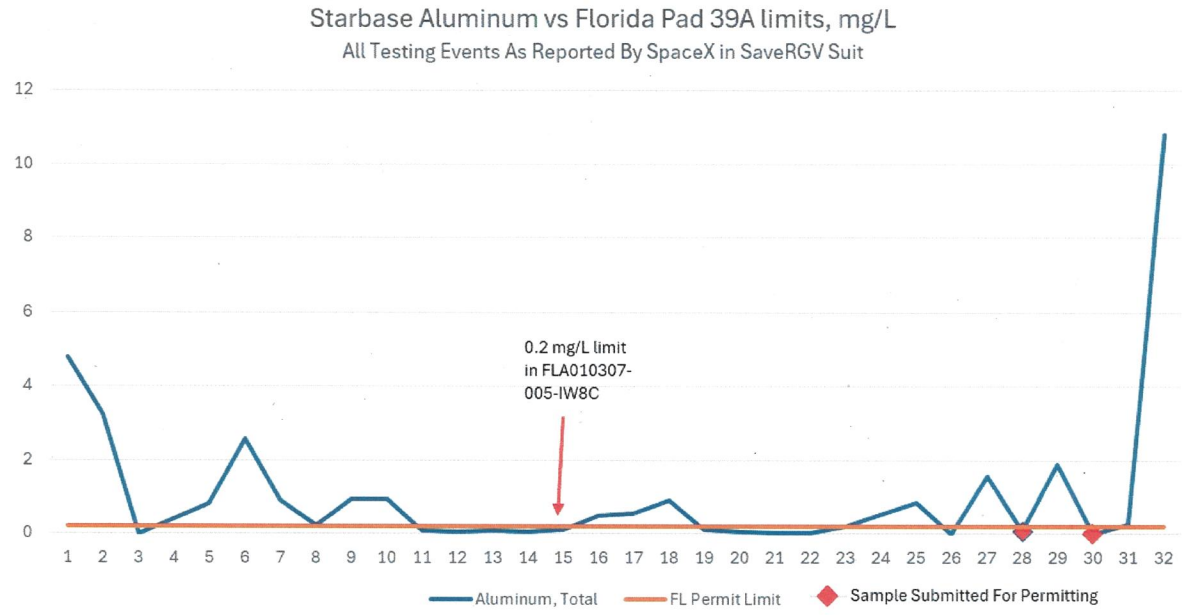
> **Technology-Based Effluent Limitations**
> Regulations in Title 40 of the Code of Federal Regulations (40 CFR) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines.
>
> Effluent limitations for chemical oxygen demand, oil & grease, and pH are based on the standard limitations normally applied to instantaneous industrial stormwater discharges. These are indicator parameters of the quality of the discharge. Based on the presumption of the quality of the other contributing wastestreams being consistent with the quality of stormwater runoff of the facility, these limitations are imposed on the discharge of the commingled wastestreams via the designated outfalls. The monitoring/reporting requirement for flow is based on 40 CFR 122.44(i)(1)(ii).

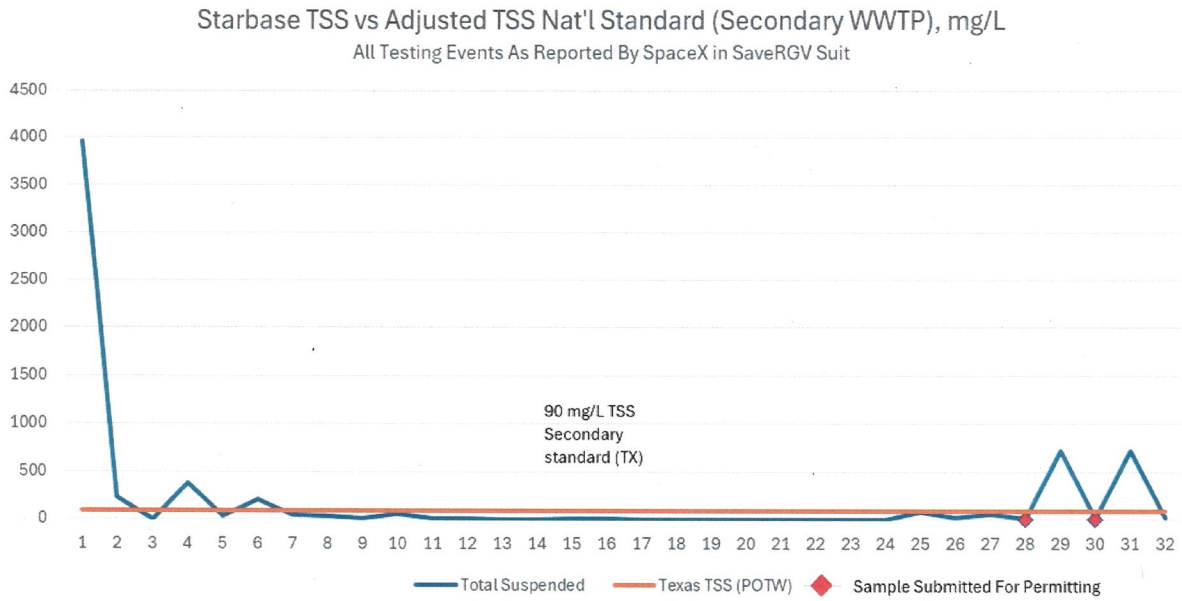
This is patently false. SpaceX has collected numerous samples that clearly indicate pad runoff water is NOT consistent with existing stormwater discharges. They just didn't send these samples to TCEQ, and TCEQ did not ask for them.

Using data submitted to federal court (case 1:24-cv-00148, filed 10/11/2024) collected by SpaceX itself, the company cannot in good faith represent that the samples collected for permitting are representative of site wide discharges. I have charted some of these (with TCEQ and SpaceX's own NPDES limits from pad 39A in Florida as a reference):




Starbase Total Dissolved Solids (TDS) vs Florida Pad 39A limits, mg/L
All Testing Events As Reported By SpaceX in SaveRGV Suit
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
200 mg/L limit
in FLA010307-
005-IW8C
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
Total Dissolved Solids
FL Permit Limit
Sample Submitted For Permitting


Starbase Aluminum vs Florida Pad 39A limits, mg/L
All Testing Events As Reported By SpaceX in SaveRGV Suit
12
10
8
6
4
2
0
0.2 mg/L limit
in FLA010307-
005-IW8C
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
Aluminum, Total
FL Permit Limit
Sample Submitted For Permitting

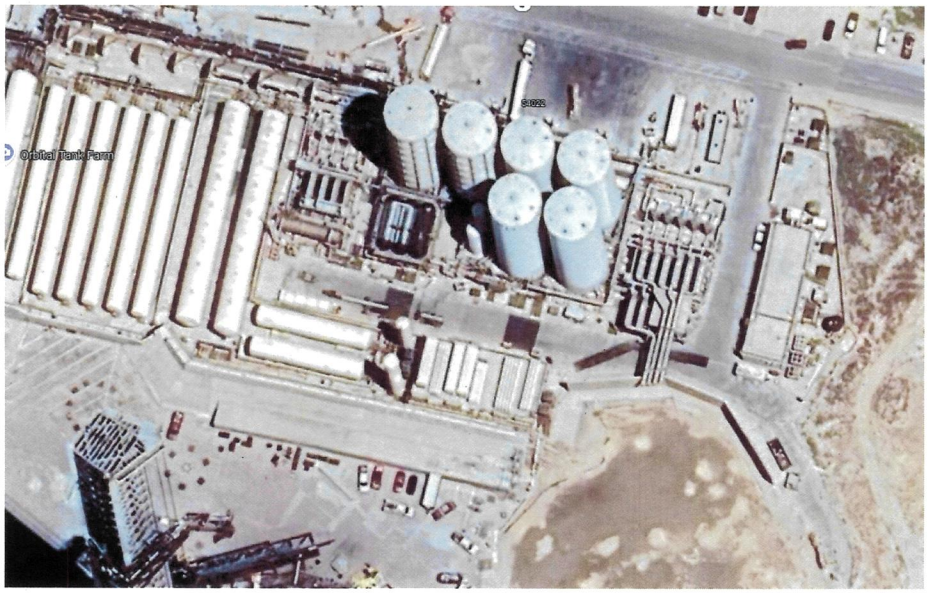


These charts show a clear and disturbing trend. SpaceX submitted samples that show concentrations that are well below the long-term averages SpaceX itself collected. The company then fraudulently claims that the samples provided were representative of all the facility wastewater AND stormwater regulated under its MSGP authorization, despite the fact that many of these samples showed criteria pollutant levels at many times (often thousands of times) higher. This is false and the representation makes the entire analysis performed by TCEQ pointless, illegal and moot.

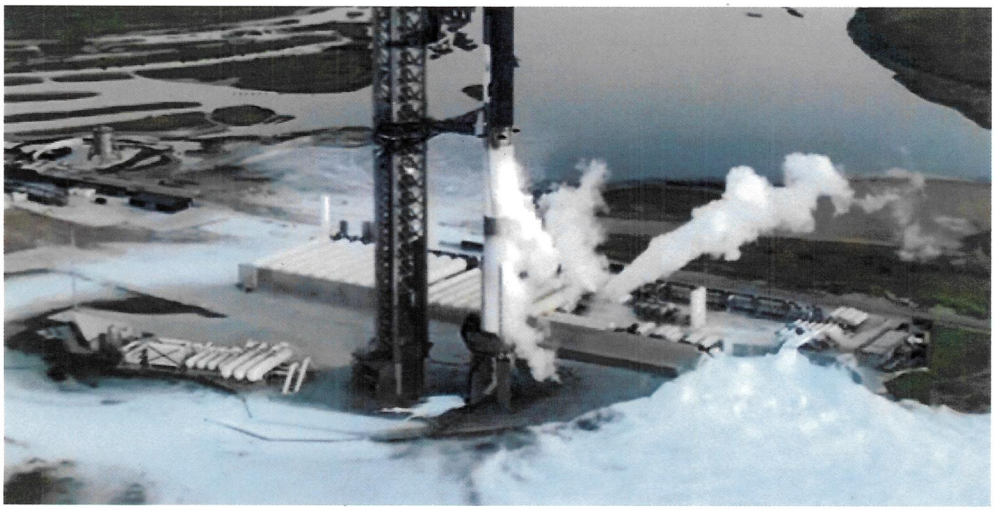
8. SpaceX is also dumping hazardous, cryogenic liquids directly into the wetlands.

While unrelated to the deluge permitting directly, it should be noted that SpaceX recently altered its tank farm for filling operations of cryogenic Liquid Oxygen and Liquid Methane (eg, LNG).

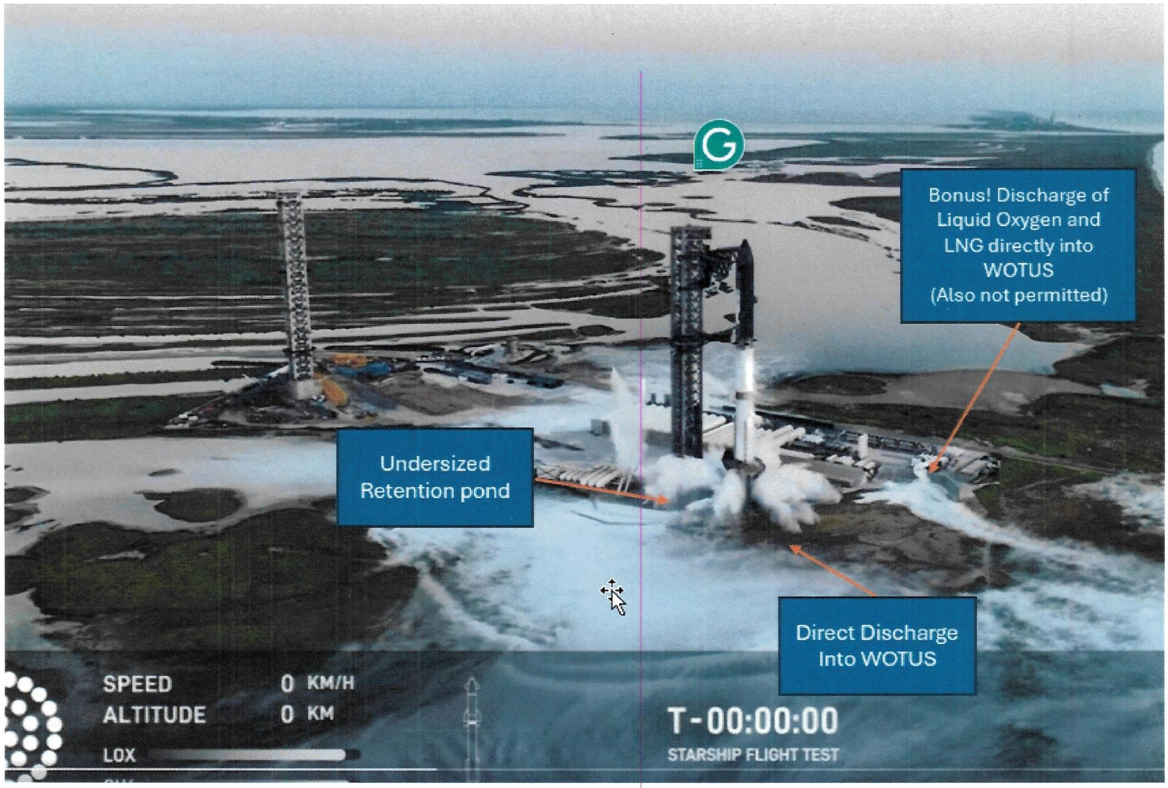
Previous tank farm:



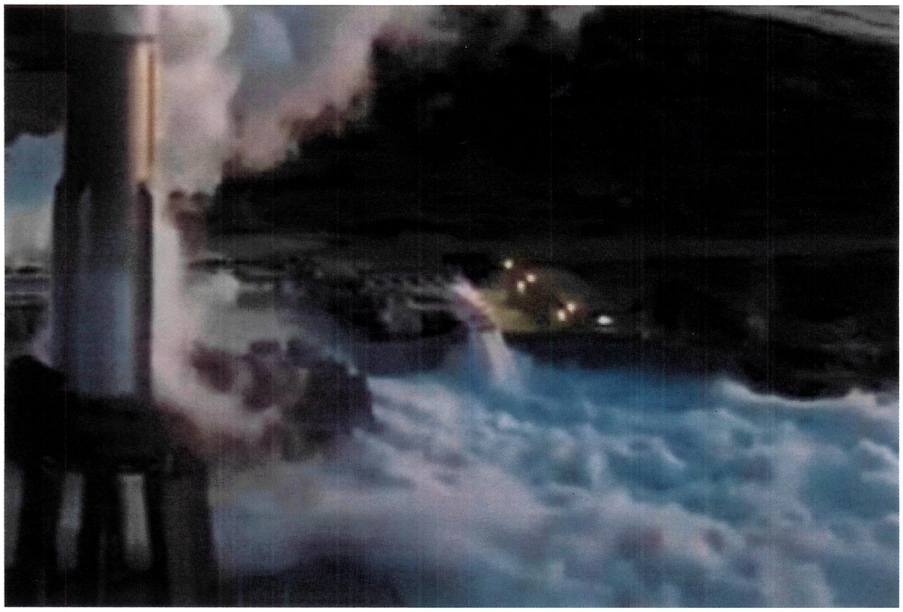
New Tank farm (modified pumps and removal of vertical tanks):



Stunningly, the excess cryogenic liquids are vented not into a dedicated sump with containment (as required at minimum by NFPA 59a and Texas Fire Code) , but directly into wetlands (eg WOTUS)



EPA has already cited SpaceX for violating the law for discharging liquid oxygen into the wetland in June 2022, but a close look at the videos from last week's launch make it clear that cryogenic fluids are gushing out into the wetlands and pooling.



This is a huge departure from previous launches, where there was residual vapor but not extensive pooling.

For example, launch 3 (3/14/24) looked like this:

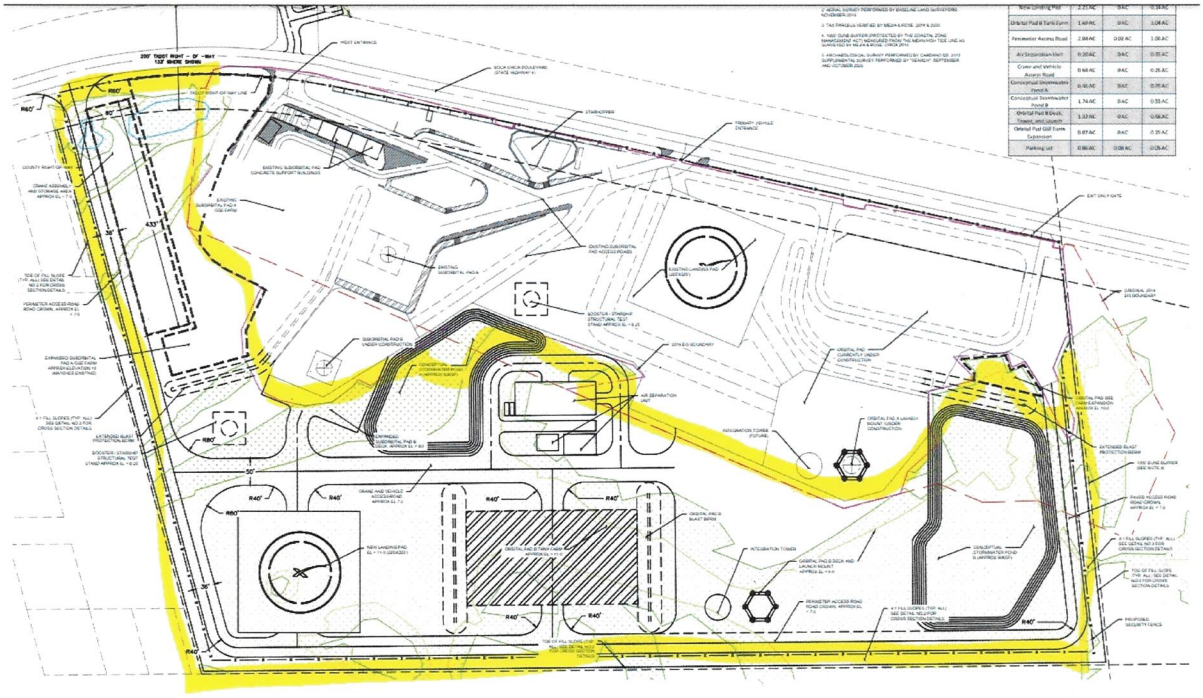
Launch 5 (10/13/24) looked like this:

While ambient conditions can and do impact how rapidly cryogenic liquids volatilize, this is irrelevant because hazardous liquid discharges to wetlands are prohibited by 30 TAC 327 and 40 CFR 302.4.

SpaceX must install blow down/venting containment for environmental protection AND to comply with State Fire code.

9. SpaceX was aware of additional water containment structures as early as 2019

SpaceX whines about having to comply with basic environmental laws, acting as if it was taken aback by these requirements. But one thing is clear: SpaceX knew years ago that additional wastewater storage would be needed. SpaceX submitted an application to the Army Corps for a wetland[9] 404 permit in 2021, which included analysis and drawings dating back to 2019. The application showed the wetland to be modified (highlighted in yellow below):



The additional ponds were clearly intended as a way to manage deluge water as required under the Clean Water Act (SpaceX has some experience managing operations at US spaceports, after all). The company abandoned the plan because it thought it could launch without deluge water and then reconsidered in April 2023 after blowing its pad to bits.

[9] https://www.swg.usace.army.mil/Portals/26/docs/regulatory/PN%20March/Plans_201200381.pdf?ver=FRFoaMtv2EGSZh833C4pRA%3d%3d

This is important context because all of SpaceX's post facto justifications as to why it should be allowed to discharge process wastewater without control and without proper NPDES authorization is just damage control on its own poor planning and lack of care for rules and regulations.

10. One of the Samples provided for permitting is not valid

The permit application includes a baffling error, given that TCEQ considered this application administratively and technically complete in record speed.

In the Lab Report from SPL, sample 2302895 is listed as having been collected at 6:30 PM on 5/29:

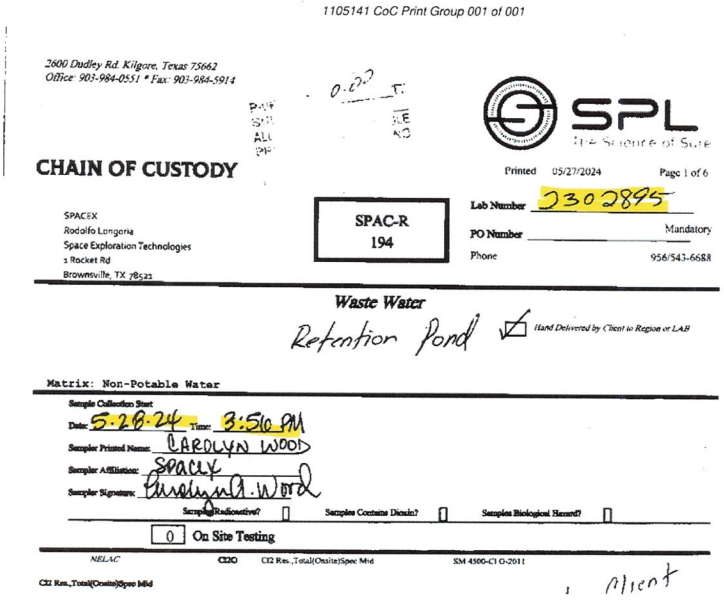
SAMPLE CROSS REFERENCE

SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

Sample	Sample ID	Taken	Time
2302895	*RETENTION POND*	05/29/2024	18:30:00

Bottle 01 Amber 32 Oz

However, the Chain of Custody form indicates that SpaceX employee Carolyn Wood collected the sample on 5/28 at 3:56 PM



1105141 CoC Print Group 001 of 001

2600 Dudley Rd. Kilgore, Texas 75662
Office: 903-984-0551 * Fax: 903-984-5914

SPL
The Science of Sure

CHAIN OF CUSTODY

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SPACEX
Rodolfo Longoria
Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R
194

Lab Number 2302895
PO Number Mandatory
Phone 956/543-6688

Waste Water
Retention Pond
Hand Delivered by Client to Region or LAB

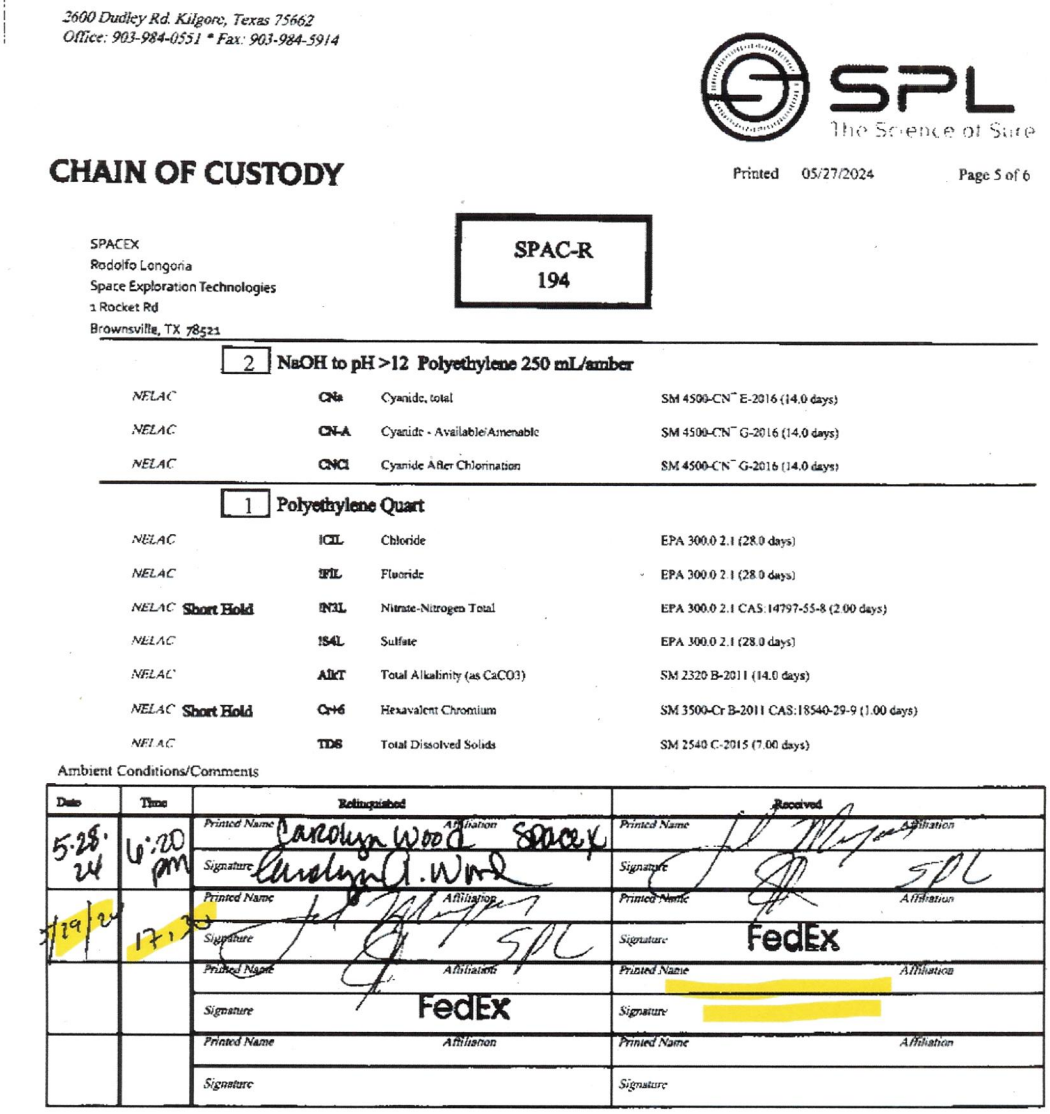
Matrix: Non-Potable Water
Sample Collection Start
Date: 5-28-24 Time: 3:56 PM
Sampler Printed Name: CAROLYN WOOD
Sampler Affiliation: SPACEX
Sampler Signature: Carolyn A. Wood
Samples Radioactive? Samples Contain Diesin? Samples Biological Hazard?
0 On Site Testing

NELAC C120 Cl2 Res.,Total(Onsite)Spec Mtd SM 4500-Cl G-2011

Cl2 Res.,Total(Onsite)Spec Mtd

Client

Furthermore, the sample was handed over to FedEx at 5:30 PM on 5/29, AN HOUR BEFORE the sample was listed as collected.



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SPACEX
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Space Exploration Technologies
1 Rocket Rd
Brownsville, TX 78521

SPAC-R 194

	2	**NaOH to pH >12 Polyethylene 250 mL/amber**		
NELAC		CNa	Cyanide, total	SM 4500-CN⁻ E-2016 (14.0 days)
NELAC		CN-A	Cyanide - Available/Amenable	SM 4500-CN⁻ G-2016 (14.0 days)
NELAC		CNCl	Cyanide After Chlorination	SM 4500-CN⁻ G-2016 (14.0 days)
	1	**Polyethylene Quart**		
NELAC		ICIL	Chloride	EPA 300.0 2.1 (28.0 days)
NELAC		IFIL	Fluoride	EPA 300.0 2.1 (28.0 days)
NELAC	Short Hold	IN3L	Nitrate-Nitrogen Total	EPA 300.0 2.1 CAS:14797-55-8 (2.00 days)
NELAC		IS4L	Sulfate	EPA 300.0 2.1 (28.0 days)
NELAC		AlkT	Total Alkalinity (as CaCO3)	SM 2320 B-2011 (14.0 days)
NELAC	Short Hold	Cr+6	Hexavalent Chromium	SM 3500-Cr B-2011 CAS:18540-29-9 (1.00 days)
NELAC		TDS	Total Dissolved Solids	SM 2540 C-2015 (7.00 days)

Ambient Conditions/Comments

Date	Time	Relinquished		Received	
5.28.24	6:20 pm	Printed Name: Carolyn Wood	Affiliation: SpaceX	Printed Name:	Affiliation:
		Signature: Carolyn Q. Wood		Signature:	SPL
5/29/24	17:30	Printed Name:	Affiliation:	Printed Name:	Affiliation:
		Signature:	SPL	Signature:	FedEx
		Printed Name:	Affiliation:	Printed Name:	Affiliation:
		Signature:	FedEx	Signature:	
		Printed Name:	Affiliation:	Printed Name:	Affiliation:
		Signature:		Signature:	

On top of this, SPL never signed the CoC for receipt. This sample is functionally worthless and must tossed. Further, this demands an investigation given evidence presented above that SpaceX is selectively submitting samples to TCEQ.

11. Request for a contested hearing

Considering the numerous technical flaws in SpaceX's permit application and the baffling shortcuts enabled by TCEQ, I am proactively requesting a contested hearing on this permit issuance. The agency can and must do better.