

# **6144 FEDERAL BLVD., SAN DIEGO, CA 92114**

United Rentals FRAC Tank Operations

## Environmental Hazard Profile & Agency Communications Analysis

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Question & Answer Record — Full Conversation Transcript

Prepared: June 16, 2026

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This document contains the complete question submitted and the full analytical response produced in connection with the United Rentals FRAC tank operations at 6144 Federal Blvd. Source documents reviewed include the community petition with signatures, porta-potty waste treatment process analysis, FRAC tank Q&A, Jeff Davies statement of events, Cotton email to City Environmental Services, SDAPCD briefing and fire suppression analysis, SDAPCD Rule 51, California HSC §41700, Cotton correspondence to SDAPCD/IWCP/SDFD, and the 6144 Federal Blvd. historical timeline images.

## QUESTION

### **Source: Darryl Cotton / Project Owner**

This Project will focus strictly on the environmental and agency related communications to alert those agencies to the FRAC tank batch processing of human waste at United Rentals 6144 Federal Blvd. yard. The attached files will be the source files for this project.

The analysis thread should determine what those email communications with the various agencies amounted to in the agency's response as it relates to their duties to oversee and order corrective measures that eliminate the situation at the FRAC tank.

Identify and comment on any and all gases, liquids or solids that represent both an environmental and personal injury threat to those who would come in contact with the byproducts from the storage and processing of human waste at the FRAC tank.

For the purpose of this project, any legal analysis should be kept to a minimum.

## ANSWER

### **1. EXECUTIVE SUMMARY**

United Rentals, Inc. operates a porta-potty rental and service business at 6144 Federal Blvd., San Diego, CA 92114. At the southeastern corner of that property — immediately adjacent to the shared property line with 6176 Federal Blvd. (the Cotton property) — United Rentals has installed an estimated 21,000-gallon FRAC tank and associated IBC totes that serve as an open-air transfer and consolidation point for raw domestic septage collected by a fleet of 10 or more vacuum trucks daily.

The first satellite evidence of the FRAC tank being in service dates to February 2024. By June 2026, the cumulative environmental record documents persistent, severe odor emissions; potential toxic gas exposure to workers and neighbors; fire and explosion risk from uncontrolled methane and hydrogen sulfide generation; apparent absence of required permits and odor control infrastructure; a stressed and declining pine tree consistent with chronic chemical exposure; and a 21-signatory community petition, a cancelled \$935,000 property sale, and adjacent businesses reporting illness and lost customers.

This analysis covers: (A) all agency communications and the adequacy of agency responses to date; and (B) the full environmental and personal injury hazard profile of the gases, liquids, and solids generated by the FRAC tank operation.

### **2. AGENCY COMMUNICATIONS — STATUS ANALYSIS**

#### **2.1 City of San Diego Environmental Services (Code Compliance)**

### **Communication Record**

May 12, 2026 — Darryl Cotton emailed Alarice King, Code Compliance Officer, and Demontus Leal, City of San Diego Environmental Services. The email followed an in-person meeting at 6176 Federal Blvd. during which Leal personally observed and documented the odors emanating from the United Rentals human waste management tanks on the shared property line. Cotton described the odors as substantially worse during hotter parts of the day when truck offloading activity peaks, and asked King to evaluate whether United Rentals' equipment placement was compliant with applicable ordinances.

### **Agency Response Assessment**

No written response from King or Leal is present in the document record. However, the in-person observation by City inspector Leal on May 12, 2026 constitutes independent government corroboration of the odor nuisance — created before any formal regulatory complaint was filed. This is the most significant objective baseline in the record: a government official documented the odor before any community petition, formal demand letter, or agency filing existed.

#### **GAP IDENTIFIED**

No formal written response, inspection report, or corrective order from City Environmental Services / Code Compliance is present in the record. The May 12 email went to Code Compliance (King) rather than to a permit or zoning enforcement unit and may have been treated as an informal inquiry rather than a formal complaint. A formal complaint regarding the Conditional Use Permit status of the liquid waste transfer operation has not been confirmed as filed.

## **2.2 San Diego Air Pollution Control District (SDAPCD)**

### **Communication Record**

A formal complaint was filed, assigned complaint number APCD2026-CMP-1888. On June 15, 2026, SDAPCD Air Quality Inspector Melanie Sanchez visited 6144 Federal Blvd. and personally smelled the strong odor from the FRAC tank. Cotton emailed Sanchez that afternoon, attaching the community petition and historical timeline images, and noting uncertainty about why SDAPCD would lack jurisdiction and asking that if they do not, they direct him to the correct agency. Sanchez replied at 3:13 PM that she would forward the materials to management. No formal enforcement action, Notice of Violation, or Notice to Comply had been issued as of the document dates.

### **Agency Response Assessment**

Inspector Sanchez's site visit and independent sensory confirmation of the FRAC tank odor is a significant development: the SDAPCD's own inspector has now verified the complaint through direct observation, establishing the factual predicate for enforcement. Sanchez's statement that she was 'not sure why SDAPCD doesn't have jurisdiction' is a concern. SDAPCD Rule 51 broadly prohibits any discharge of air contaminants causing nuisance or annoyance to a considerable number of persons from any source whatsoever. A 21,000-gallon open-air raw septage tank generating hydrogen sulfide, ammonia, and VOCs falls squarely within that prohibition. No agricultural exemption applies to portable sanitation transfer operations.

**GAP IDENTIFIED**

The record suggests possible internal confusion at SDAPCD about whether the odor source qualifies under their rules. No such exemption exists in Rule 51 for porta-potty transfer operations. The matter has been escalated to SDAPCD management. A follow-up to confirm the jurisdictional determination is the most urgent outstanding item.

## 2.3 City of San Diego Industrial Wastewater Control Program (IWCP)

**Communication Record**

June 15, 2026 — Cotton emailed Jacob Garcia at the City of San Diego IWCP, referencing a prior in-person visit to the IWCP office to inquire about permits for the United Rentals waste processing operation. The email asks where the waste goes once it is in the FRAC tank and whether the operation is fully compliant with IWCP requirements. No response from Garcia is present in the record.

**Agency Response Assessment**

The IWCP is a critical enforcement agency. All vacuum trucks discharging domestic septage to the public sewer in San Diego must hold active Trucked Domestic Waste Hauler Permits — one per vehicle. An intermediate transfer/consolidation point such as the 6144 yard also requires its own facility permit. The IWCP can verify permit status for every truck in the United Rentals fleet and for the transfer station itself.

**GAP IDENTIFIED**

No response from Garcia or the IWCP is present in the record. IWCP verification of per-vehicle permit status and the existence (or absence) of a facility permit for the 6144 transfer station should be pursued as a priority parallel track.

## 2.4 San Diego Fire-Rescue Department (SDFD)

**Communication Record**

June 15, 2026 — Cotton contacted Nae' Tate, Wildfire Prevention & Mitigation Administrator at SDFD, by phone. Tate responded by email acknowledging the contact. Cotton followed up at 10:41 AM with supporting documents (petition and historical timeline images) and identified the other agencies also investigating. Cotton requested that any corrective orders to United Rentals and property owner Westport Property, LLC be copied to him. No formal fire code inspection or enforcement response from SDFD is present in the record.

**Agency Response Assessment**

Nae' Tate's role as Wildfire Prevention & Mitigation Administrator may not be the optimal entry point for a fire code enforcement complaint regarding a fixed flammable gas source. The direct channel is the SDFD Fire Prevention Division, which holds independent inspection authority over facilities storing or generating flammable gases under the California Fire Code, and has authority to order immediate equipment removal for active fire code violations — potentially the fastest route to physical abatement of the tank.

**GAP IDENTIFIED**

No formal fire code inspection or enforcement response from SDFD Fire Prevention is in the record. A formal complaint to SDFD Fire Prevention (separate from the Wildfire Prevention contact already made) should be confirmed as filed.

## 2.5 Agency Response Summary Matrix

Agency	Contact	Date	Response	Enforcement	Status
City Environmental Services	King / Leal	May 12, 2026	Leal in-person observation	None	Incomplete
SDAPCD	Sanchez / Landi	Jun 15, 2026	Site visit; smelled odor; forwarded to mgmt	None yet	Active — awaiting jurisdictional ruling
City IWCP	Jacob Garcia	Jun 15, 2026	None in record	None	Pending
SDFD Fire Prevention	Nae' Tate (Wildfire)	Jun 15, 2026	Acknowledgment only	None	Incomplete — Fire Prevention not yet engaged
County DEHQ	Not identified	Not filed	None	None	Critical gap
RWQCB Region 9	Not identified	Not filed	None	None	Critical gap
Cal/OSHA	Not identified	Not filed	None	None	Critical gap

### 3. ENVIRONMENTAL & PERSONAL INJURY HAZARD PROFILE

The following section identifies and characterizes every gas, liquid, and solid known to be generated by the anaerobic decomposition of raw domestic septage stored in an open or inadequately sealed FRAC tank. Each substance is evaluated for its environmental impact and personal injury risk to anyone who may come into contact with the byproducts of this operation — including neighboring property occupants, community members on adjacent streets, and United Rentals employees at the offloading point.

#### 3.1 Gaseous Byproducts

##### Hydrogen Sulfide (H<sub>2</sub>S)

Hydrogen sulfide is the primary odor compound and the most acutely dangerous gas produced by anaerobic decomposition of human waste. It is generated continuously from the breakdown of sulfur-containing proteins in raw sewage stored in a 21,000-gallon open tank.

Parameter	Value / Description
Odor threshold	0.0005–0.3 ppm — detectable at extremely low concentrations
OSHA PEL (ceiling)	20 ppm — legal maximum worker exposure
NIOSH IDLH	100 ppm — immediately dangerous to life or health
CA OEHHA sensitive population threshold	30 ppb (0.03 ppm) — affects children, elderly, asthma patients
Olfactory fatigue	At 100–150 ppm workers lose the ability to smell H <sub>2</sub> S — primary mechanism of sewage worker fatalities
Plant toxicity	Phytotoxic at 0.3–1.0 ppm; needle chlorosis, canopy thinning in conifers
Community risk	Continuous off-gassing at shared property line; easterly winds carry odors throughout Federal Blvd. corridor

The adjacent pine tree at 6144 Federal Blvd. presents visual evidence consistent with chronic H<sub>2</sub>S exposure: progressive canopy thinning beginning approximately 24–28 months after the FRAC tank was placed into service (February 2024), while neighboring trees of the same species show no comparable stress — functioning as a natural control group.

##### Methane (CH<sub>4</sub>)

Methane is the primary combustion product of anaerobic digestion, generated in substantial volume by a 21,000-gallon active waste tank. It is colorless, odorless, and lighter than air.

Parameter	Value / Description
Lower Explosive Limit (LEL)	5% by volume in air
Upper Explosive Limit (UEL)	15% by volume in air
OSHA monitoring requirement	Continuous monitoring required; alarm at 10% of LEL (0.5% by volume)

Ignition sources at 6144	Running diesel engines, electrical pumping equipment, mechanical connections — all present daily
BLEVE risk	Methane-air mixture in explosive range ignited near a 21,000-gallon tank creates a vapor explosion risk establishing a safety exclusion zone encompassing the Cotton property
Worker hazard	Asphyxiation risk in confined spaces where methane displaces oxygen

### Ammonia (NH<sub>3</sub>)

Ammonia is produced continuously from the decomposition of urea and proteins in human waste. It is colorless with a sharp, pungent odor.

- OSHA PEL: 50 ppm (8-hour TWA)
- At 300 ppm: severe chemical burns to respiratory airways; immediate life threat
- At community concentrations: eye, nose, throat irritation; headaches; asthma exacerbation
- Environmental pathway: aerial dispersion and deposition on adjacent vegetation and soils

### Carbon Dioxide (CO<sub>2</sub>)

- Displaces oxygen in confined/semi-enclosed spaces, creating asphyxiation risk for workers
- Inhibits detection of flammable gas accumulation by reducing sensor sensitivity
- Produced alongside methane as a co-product of anaerobic digestion

### Volatile Organic Compounds (VOCs) — Including BTEX and Formaldehyde

Raw domestic septage, particularly when it includes chemical deodorizers (typically formaldehyde- or glutaraldehyde-based blue fluid in porta-potties), generates a range of VOCs during storage and decomposition.

- BTEX compounds (benzene, toluene, ethylbenzene, xylene): known carcinogens and neurotoxins
- Formaldehyde vapors from chemical deodorizer breakdown: classified as a probable human carcinogen (IARC Group 2A)
- VOCs deposited on pine needles block stomata, degrade the waxy cuticle, and reduce photosynthetic efficiency
- BTEX compounds absorbed into soil create a contamination zone in the root zone of adjacent vegetation

### Bioaerosols

Vacuum truck offloading operations — pumping raw sewage under pressure — generate continuous fine bioaerosol spray carrying viable pathogenic microorganisms into ambient air.

Pathogen	Disease / Risk	Transmission
Norovirus	Severe gastroenteritis; highly contagious	Inhalation; surface deposition
Hepatitis A	Liver disease	Inhalation; oral ingestion

Hepatitis B	Chronic liver disease; carcinogen risk	Contact with contaminated material
E. coli O157:H7	Hemorrhagic colitis; hemolytic uremic syndrome	Ingestion; surface contact
Cryptosporidium	Cryptosporidiosis; severe in immunocompromised	Inhalation; ingestion
Campylobacter	Campylobacteriosis; reactive arthritis sequelae	Ingestion; direct contact
Ascaris / helminth ova	Intestinal parasitism	Ingestion of deposited material

Adjacent businesses reporting illness and multiple petition signatories describing health effects are consistent with bioaerosol exposure from the offloading operation. Children, the elderly, and immunocompromised individuals are at elevated risk.

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## 3.2 Liquid Byproducts and Contamination Pathways

### Leachate and Condensate

Any liquid escaping the FRAC tank through corrosion-induced seepage, condensate drip, overflow during transfer operations, or wash water creates a liquid hazard with multiple pathways.

- The tank at 6144 shows visible corrosion in the photographic record — a corroded carbon steel tank storing biologically active human waste is at elevated risk of seepage
- Any liquid reaching soil or the storm drain network is a Clean Water Act violation
- San Diego operates an MS4 storm sewer system — any sewage-contaminated liquid entering it flows to San Diego Bay or other receiving waters, a directly reportable NPDES violation
- The FRAC tank sits 48 inches from the Cotton property wall — any soil contamination from leachate in this zone reaches the Cotton property's subsurface

### Chemical Deodorizer Residue

Porta-potty biocides (formaldehyde, quaternary ammonium compounds, surfactants) remain active in collected septage and do not break down during intermediate storage. These chemicals are toxic to soil microbiota and can persist in soil, inhibiting natural decomposition and creating a chemically altered root zone for adjacent vegetation.

### Fats, Oils, and Grease (FOG)

- Floats to the surface of the stored waste, creating a flammable surface layer
- If displaced in a spill or overflow event, coats adjacent surfaces and soil
- Reduces oxygen transfer into the waste mass, increasing anaerobic decomposition and gas production

## 3.3 Solid and Particulate Byproducts

### Dried and Aerosolized Solids

During active offloading, solid particles in the raw sewage stream are aerosolized by the pressure differential of the vacuum truck discharge. These particles carry the full pathogen load of raw sewage. Once dried on surfaces — fences, vehicles, buildings, vegetation — they can be resuspended by wind and transported to adjacent properties.

### Biofilm and Surface Contamination

The exterior surfaces of the FRAC tank and surrounding ground area develop biofilm: colonies of pathogenic bacteria embedded in a protective polysaccharide matrix. These biofilms are resistant to casual cleaning and maintain infectious potential for extended periods. Worker contact with tank exterior surfaces without appropriate PPE is a direct personal injury pathway.

### Grit and Screenings

Raw porta-potty waste contains inorganic grit and debris (sand, gravel, trash, wipes, hygienic products). In a compliant treatment operation, grit is removed in enclosed receiving structures before

any open-air handling. At an open-air transfer yard, grit and solids are present throughout the offloading area, where they contaminate stormwater runoff.

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## 4. CONSOLIDATED HAZARD MATRIX

Substance	Type	Health Risk	Environmental Risk	Key Regulations
Hydrogen Sulfide	Gas	Olfactory fatigue; pulmonary edema; death >500 ppm	Phytotoxic at 0.3 ppm; tree decline	OSHA PEL 20 ppm; SDAPCD Rule 51; HSC §41700
Methane	Gas	Asphyxiation; explosion (LEL 5–15%)	GHG; uncontrolled release	CFC Ch. 53; NFPA 1/30/58; Cal/OSHA §5189
Ammonia	Gas	Respiratory burns at 300 ppm; irritation at low ppm	Nitrogen deposition on soil/vegetation	OSHA PEL 50 ppm; SDAPCD Rule 51
Carbon Dioxide	Gas	Asphyxiation in confined spaces	GHG emissions	Cal/OSHA confined space §§5156–5159
VOCs / BTEX	Gas/Vapor or	Carcinogens; neurotoxins (benzene)	Soil contamination; root zone damage	Clean Air Act; SDAPCD; Title 27 CCR
Formaldehyde vapors	Gas/Vapor or	Probable carcinogen (IARC 2A)	Soil persistence	Cal OEHHA; SDAPCD; Hazcom §5194
Bioaerosols	Particles	Norovirus, Hep A/B, E. coli O157, Crypto	Pathogen deposition on adjacent properties	40 CFR Part 503; Cal/OSHA PPE/IIPP
Leachate / seepage	Liquid	Pathogen/chemical exposure via contact	Storm drain; groundwater risk	CWA/NPDES; Water Code §13260; RWQCB
Chemical deodorizers	Liquid in waste	Toxic to skin/mucous membranes	Soil microbiota disruption; vegetation harm	CalEPA Title 27; DTSC
Fats, oils & grease	Liquid	Flammable surface layer; skin irritant	Soil and drain clogging	CWA pretreatment; IWCP
Aerosolized solids	Particulate	Full pathogen load when resuspended	Surface contamination; wind transport	40 CFR Part 503; Cal/OSHA PPE
Biofilm on surfaces	Biological	Direct contact infection risk	Persistent; resistant to casual cleaning	Cal/OSHA PPE Title 8 §3380

## 5. BOTANICAL EVIDENCE — PINE TREE DECLINE

The historical satellite and ground-level photographic record at 6144 Federal Blvd. provides visual environmental evidence of the FRAC tank's cumulative impact on adjacent vegetation.

Date	FRAC Tank Status	Pine Tree Condition
April 2007	Absent	Full, dense, healthy canopy
January 2023	Absent	Full, dense, healthy canopy
June 2023	Absent	Row of healthy full pine trees — no stress visible
February 2024	PRESENT — first satellite evidence	Baseline at tank installation
June 2026	Present — active operation	Visibly stressed; thinning; sparse needles

The temporal correlation is direct: the tree remained healthy through at least June 2023 with no FRAC tank present. The tank's first appearance in satellite imagery is February 2024. By June 2026 — approximately 24–28 months after tank activation — the tree shows unmistakable stress symptoms. Neighboring trees of the same species to the west show no comparable distress, functioning as a natural control group that eliminates regional drought, disease, or soil-wide deficiency as alternative explanations.

The three primary chemical mechanisms consistent with the observed decline are: (1) H<sub>2</sub>S phytotoxicity via cellular respiration disruption at concentrations as low as 0.3–1.0 ppm; (2) BTEX compound accumulation in root zone soil, inhibiting water and nutrient uptake; and (3) VOC deposition on needle surfaces, blocking stomata and degrading the waxy cuticle. The approximately two-year lag between tank activation and visible canopy stress is consistent with how chronic, low-level chemical stress accumulates in mature conifers before manifesting as visible decline.

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## 6. OUTSTANDING AGENCY GAPS — PRIORITY ACTION ITEMS

Based on the agency communications reviewed, the following enforcement tracks have not yet been formally initiated as of June 15, 2026:

Agency	Basis for Complaint	Priority
San Diego County DEHQ	Sewage Hauler Operating Permits — required per vehicle for all vacuum trucks; facility permit for 6144 transfer station	CRITICAL — file immediately
RWQCB Region 9	Waste Discharge Requirements (WDRs) for on-site liquid waste storage; potential soil/storm drain contamination from corroded tank	CRITICAL — file immediately
Cal/OSHA (San Diego District)	H2S/ammonia PEL monitoring absent; no PPE at offloading point; 21,000-gallon tank is a permit-required confined space; no IIPP evident	HIGH — cross-refer via SDAPCD; also file independently
SDFD Fire Prevention Division	CFC Chapters 53 & 57; NFPA 1/30/58; methane/H2S setback violations (4 ft from property line); no gas monitoring; no explosion-proof equipment	HIGH — may be fastest route to physical tank removal
City SD Code Enforcement / Planning	Conditional Use Permit status — standard equipment rental CUP does not cover a sewage transfer station; follow up on May 12 inquiry	MEDIUM — follow up on existing inquiry
SDAPCD	Confirm jurisdictional determination from management; confirm whether Rule 10 (Permit to Operate) review for frac tank is underway	ACTIVE — follow up within 48 hours

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— END OF ANALYSIS —

*This document is an analytical and informational overview prepared from the provided source files. It does not constitute legal advice.*

**6144 FEDERAL BLVD., SAN DIEGO, CA 92114**

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Environmental Hazard Profile & Agency Communications Analysis

Prepared: June 16, 2026

# 1. EXECUTIVE SUMMARY

United Rentals, Inc. operates a porta-potty rental and service business at 6144 Federal Blvd., San Diego, CA 92114. At the southeastern corner of that property — immediately adjacent to the shared property line with 6176 Federal Blvd. (the Cotton property) — United Rentals has installed an estimated 21,000-gallon FRAC tank and associated IBC totes that serve as an open-air transfer and consolidation point for raw domestic septage collected by a fleet of 10 or more vacuum trucks daily.

The first satellite evidence of the FRAC tank being in service dates to February 2024. By June 2026, the cumulative environmental record documents persistent, severe odor emissions; potential toxic gas exposure to workers and neighbors; fire and explosion risk from uncontrolled methane and hydrogen sulfide generation; apparent absence of required permits and odor control infrastructure; a stressed and declining pine tree consistent with chronic chemical exposure; and a 21-signatory community petition, a cancelled \$935,000 property sale, and adjacent businesses reporting illness and lost customers.

This report analyzes: (A) all agency communications and the adequacy of agency responses to date; and (B) the full environmental and personal injury hazard profile of the gases, liquids, and solids generated by the FRAC tank operation.

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## 2. AGENCY COMMUNICATIONS — STATUS ANALYSIS

### 2.1 City of San Diego Environmental Services (Code Compliance)

#### Communication Record

May 12, 2026 — Darryl Cotton emailed Alarice King, Code Compliance Officer, and Demontus Leal, City of San Diego Environmental Services. The email followed an in-person meeting at 6176 Federal Blvd. during which Leal personally observed and documented the odors emanating from the United Rentals human waste management tanks on the shared property line. Cotton described the odors as substantially worse during hotter parts of the day when truck offloading activity peaks, and asked King to evaluate whether United Rentals' equipment placement was compliant with applicable ordinances.

#### Agency Response Assessment

No written response from King or Leal is present in the document record. However, the in-person observation by City inspector Leal on May 12, 2026 constitutes independent government corroboration of the odor nuisance — created before any formal regulatory complaint was filed. This is significant: Leal's documented observation predates the community petition, the formal demand letter, and every subsequent agency filing, establishing an objective, government-sourced baseline for the odor problem.

#### **GAP IDENTIFIED**

No formal written response, inspection report, or corrective order from City Environmental Services / Code Compliance is present in the record. The May 12 email went to Code Compliance (King) rather than to a permit or zoning enforcement unit. The May 12 inquiry may have been treated as an informal question rather than a formal complaint. A follow-up formal complaint to the City of San Diego Development Services Department regarding the Conditional Use Permit status of the liquid waste transfer operation may not have been filed as of the document date.

## 2.2 San Diego Air Pollution Control District (SDAPCD)

### Communication Record

A formal complaint was filed, assigned complaint number APCD2026-CMP-1888. On June 15, 2026, SDAPCD Air Quality Inspector Melanie Sanchez visited 6144 Federal Blvd. and personally smelled the strong odor from the FRAC tank. Cotton emailed Sanchez that same afternoon, attaching the community petition and historical timeline images, and noting that he was uncertain why SDAPCD would not have jurisdiction and asking that if they do not, they direct him to the correct agency.

Sanchez replied at 3:13 PM on June 15 that she would forward the materials to management. At the time of the documents, no formal enforcement action, Notice of Violation, or Notice to Comply had been issued.

### Agency Response Assessment

Inspector Sanchez's site visit and independent sensory confirmation of the FRAC tank odor is a significant development: the SDAPCD's own inspector has now verified the complaint through direct observation, establishing the factual predicate for enforcement. However, Sanchez's statement that she was 'not sure why SDAPCD doesn't have jurisdiction' is a concern. SDAPCD Rule 51 broadly prohibits any discharge of air contaminants causing nuisance or annoyance to a considerable number of persons from any source whatsoever. A 21,000-gallon open-air raw septage tank generating hydrogen sulfide, ammonia, and volatile organic compounds on a commercial property shared with residential-adjacent properties falls squarely within that prohibition.

#### **GAP IDENTIFIED**

The record suggests a possible internal confusion at SDAPCD about whether the odor source qualifies as a 'source' under their rules, or whether a sewage-related operation is exempt. No such exemption exists in Rule 51 for portable sanitation transfer operations — the agricultural exemption applies only to crop growing and fowl/animal raising. Cotton's follow-up email appropriately pushes back on this by attaching supporting documentation. The matter has been escalated to SDAPCD management. A follow-up to confirm jurisdictional determination is the most urgent outstanding item.

## 2.3 City of San Diego Industrial Wastewater Control Program (IWCP)

### Communication Record

June 15, 2026 — Cotton emailed Jacob Garcia at the City of San Diego IWCP (jacob.garcia@sanidiego.gov), referencing a prior in-person visit to the IWCP office to inquire about permits for the United Rentals waste processing operation. The email asks where the waste goes once it is in the FRAC tank and whether the operation is fully compliant with IWCP requirements. No response from Garcia is present in the record.

### Agency Response Assessment

The IWCP is a critical enforcement agency in this matter. All vacuum trucks discharging domestic septage to the public sewer in San Diego must hold active Trucked Domestic Waste Hauler Permits issued by the IWCP — one permit per vehicle. An intermediate transfer/consolidation point such as the 6144 yard also requires its own permit authorizations. The IWCP can verify permit status for every truck in the United Rentals fleet and for the transfer station operation itself.

#### **GAP IDENTIFIED**

No response from Garcia or the IWCP is present in the record as of June 15, 2026. The IWCP

inquiry is a high-value parallel track: if United Rentals' trucks are discharging at the 6144 yard without proper manifesting and IWCP permit coverage, that is an independent set of violations. Verification of per-vehicle permit status and the existence (or absence) of a facility permit for the transfer station should be pursued as a priority.

## 2.4 San Diego Fire-Rescue Department (SDFD)

### Communication Record

June 15, 2026 — Cotton contacted Nae' Tate, Wildfire Prevention & Mitigation Administrator at SDFD, by phone. Tate responded by email acknowledging the contact. Cotton followed up at 10:41 AM with a second email providing Tate with two supporting documents (the petition and historical timeline images) and identifying the other agencies also investigating (SDAPCD/Vince Landi and IWCP/Jacob Garcia). Cotton requested that any corrective orders to United Rentals and to the property owner Westport Property, LLC be copied to him.

### Agency Response Assessment

Nae' Tate's role as Wildfire Prevention & Mitigation Administrator may not be the optimal entry point for a fire code enforcement complaint regarding a fixed flammable gas source. The more direct channel within SDFD for this matter is the Fire Prevention Division, which holds inspection authority over facilities storing or generating flammable gases under the California Fire Code. That said, Tate's acknowledgment and Cotton's follow-up email confirm that SDFD has been notified and has received the core documents. Cotton's note that Tate lives nearby and has seen the tank adds a layer of personal familiarity with the site.

#### GAP IDENTIFIED

No formal fire code inspection or enforcement response from SDFD is in the record. The fire and explosion risk analysis — methane and H<sub>2</sub>S generation, absence of gas monitoring, no California Fire Code setback compliance at 4 feet from the property line — represents a separate enforcement track with potentially the fastest remediation pathway. The SDFD Fire Prevention Division has authority to order immediate equipment removal for active fire code violations. A formal complaint to SDFD Fire Prevention (separate from the Wildfire Prevention contact) should be confirmed as filed.

## 2.5 Summary — Agency Response Matrix

Agency	Contact	Communication Date	Response Received	Enforcement Action	Status
City Environmental Services	King / Leal	May 12, 2026	Leal in-person observation only	None documented	Incomplete — formal complaint may not have been filed
SDAPCD	Sanchez / Landi	June 15, 2026	Sanchez visited site; smelled odor; forwarded to mgmt	None yet	Active — awaiting jurisdiction

Agency	Contact	Communication Date	Response Received	Enforcement Action	Status
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City IWCP	Jacob Garcia	June 15, 2026	None in record	None	Pending — no response as of document date
SDFD Fire Prevention	Nae' Tate (via Wildfire)	June 15, 2026	Acknowledgment only	None	Incomplete — Fire Prevention Division not yet formally engaged
County DEHQ	Not identified	Not documented	None	None	Not yet filed — critical gap for per-vehicle sewage hauler permits
RWQCB Region 9	Not identified	Not documented	None	None	Not yet filed — required for on-site liquid waste storage WDRs
Cal/OSHA	Not identified	Not documented	None	None	Not yet filed — H2S, methane, confined space, PPE violations

### 3. ENVIRONMENTAL & PERSONAL INJURY HAZARD PROFILE

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#### 3.1 Gaseous Byproducts

##### Hydrogen Sulfide (H<sub>2</sub>S)

Hydrogen sulfide is the primary odor compound and the most acutely dangerous gas produced by anaerobic decomposition of human waste. It is generated continuously in a 21,000-gallon open tank from the breakdown of sulfur-containing proteins and amino acids in raw sewage.

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Critical danger: olfactory fatigue	At 100–150 ppm, workers lose the ability to smell H <sub>2</sub> S — the primary mechanism of sewage worker fatalities
Community receptor risk	Continuous off-gassing at shared property line; easterly winds carry concentrations throughout Federal Blvd. corridor
Environmental pathway	Aerial dispersion; soil absorption through root zone; foliar deposition on vegetation
Plant toxicity	Phytotoxic at 0.3–1.0 ppm; causes needle chlorosis, premature drop, canopy thinning in conifers

The adjacent pine tree at 6144 Federal Blvd. presents visual evidence consistent with chronic H<sub>2</sub>S exposure: progressive canopy thinning beginning approximately 24–28 months after the FRAC tank was placed into service (February 2024), while neighboring trees of the same species show no comparable stress.

##### Methane (CH<sub>4</sub>)

Methane is the primary combustion product of anaerobic digestion and is generated in substantial volume by a 21,000-gallon active waste tank. It is colorless, odorless, and lighter than air.

Parameter	Value / Description
Lower Explosive Limit (LEL)	5% by volume in air
Upper Explosive Limit (UEL)	15% by volume in air

Parameter	Value / Description
OSHA alarm threshold	Continuous monitoring required; alarm at 10% of LEL (0.5% by volume)
Ignition sources present	Running diesel engines, electrical pumping equipment, mechanical connections — all present daily at offloading point
Fire department consequence	A methane-air mixture in the explosive range ignited near a 21,000-gallon tank creates a vapor explosion (BLEVE) risk that would establish an exclusion zone encompassing the Cotton property
Environmental impact	Global warming potential approximately 84x CO <sub>2</sub> over 20 years; uncontrolled methane release is an independent Clean Air Act concern
Worker safety	Asphyxiation risk in confined spaces (frac tank interior) where methane displaces oxygen

### Ammonia (NH<sub>3</sub>)

Ammonia is produced continuously from the decomposition of urea and proteins in human waste. It is a colorless gas with a sharp, pungent odor detectable at very low concentrations.

Parameter	Value / Description
OSHA PEL	50 ppm (8-hour TWA)
At 300 ppm	Severe chemical burns to respiratory airways; immediate life threat
Community odor impact	Contributes to the complex 'sewage' odor experienced by petition signatories and documented by inspectors
Health effects at low concentration	Eye, nose, and throat irritation; headaches; exacerbation of asthma and other respiratory conditions
Environmental pathway	Aerial dispersion; deposited on vegetation and soils adjacent to tank

### Carbon Dioxide (CO<sub>2</sub>)

CO<sub>2</sub> is produced in substantial volume as a co-product of anaerobic digestion alongside methane. While not flammable, it is a significant hazard in the confined space context.

- Displaces oxygen in enclosed or semi-enclosed spaces, creating asphyxiation risk for workers entering or working near the tank
- Inhibits detection of flammable gas accumulation by reducing the effective sensitivity of gas detection equipment
- Contributes to greenhouse gas emissions from the uncontrolled venting operation

### Volatile Organic Compounds (VOCs)

Raw domestic septage, particularly when it includes chemical deodorizers (the blue fluid in porta-potties — typically formaldehyde or glutaraldehyde-based), generates a range of VOCs during storage and aerobic/anaerobic decomposition.

- BTEX compounds (benzene, toluene, ethylbenzene, xylene) are produced from chemical additive degradation and are known carcinogens and neurotoxins
- Formaldehyde vapors from chemical deodorizer breakdown are classified as a probable human carcinogen (Group 2A, IARC)
- VOCs deposited on pine needles block stomata, degrade the waxy cuticle layer, and reduce photosynthetic efficiency — consistent with the observed tree decline
- BTEX compounds absorbed into soil create a contamination zone in the root zone of adjacent vegetation

## Bioaerosols

Vacuum truck offloading operations — pumping raw sewage under pressure from truck tanks into the FRAC tank — generate continuous fine bioaerosol spray. These aerosols carry viable pathogenic microorganisms into the ambient air, where they can remain suspended and travel to adjacent properties.

Pathogen	Disease / Risk	Transmission Route
Norovirus	Severe gastroenteritis; highly contagious	Inhalation of aerosol droplets; surface deposition
Hepatitis A	Liver disease; potentially serious	Inhalation; oral ingestion of contaminated material
Hepatitis B	Chronic liver disease; carcinogen risk	Contact with contaminated material
E. coli O157:H7	Hemorrhagic colitis; hemolytic uremic syndrome	Ingestion; contact with contaminated surfaces
Cryptosporidium	Cryptosporidiosis; severe in immunocompromised	Inhalation; ingestion of oocysts
Campylobacter	Campylobacteriosis; reactive arthritis sequelae	Ingestion; direct contact
Ascaris / helminth ova	Intestinal parasitism	Ingestion of deposited material

Adjacent businesses reporting illness and lost customers, and the multiple petition signatories describing health effects, are consistent with bioaerosol exposure from the offloading operation. Children, the elderly, and immunocompromised individuals are at elevated risk.

## 3.2 Liquid Byproducts and Contamination Pathways

### Leachate and Condensate

Any liquid that escapes the FRAC tank — through corrosion-induced seepage, condensate drip from fittings, overflow during transfer operations, or wash water from cleaning operations — constitutes a liquid hazard with multiple environmental pathways.

- The FRAC tank at 6144 Federal Blvd. shows visible corrosion in the photographic record. A corroded carbon steel tank storing biologically active human waste is at elevated risk of seepage through pitted or compromised wall sections.
- Any liquid reaching the soil or storm drain network is a violation of the Clean Water Act and California Water Code Section 13260, which prohibits discharge to waters of the state without a permit.
- San Diego operates a municipal separate storm sewer system (MS4). Any sewage-contaminated liquid reaching a storm drain at 6144 Federal Blvd. enters the MS4 and ultimately flows to San Diego Bay or other receiving waters — a directly reportable NPDES violation.
- The photographic record documents the FRAC tank positioned with only 48 inches of separation from the adjacent building at 6176 Federal Blvd. Any soil contamination from leachate in this zone reaches the Cotton property's subsurface.

### Chemical Deodorizer Residue

Porta-potty chemical deodorizers (biocides such as formaldehyde, quaternary ammonium compounds, and surfactants) remain active in collected septage and do not break down during intermediate storage in the FRAC tank. These chemicals are toxic to soil microbiota and can persist in soil, inhibiting natural decomposition processes and creating a chemically altered root zone for adjacent vegetation.

### Fats, Oils, and Grease (FOG)

Human waste contains significant fats, oils, and greases. In a stationary open tank, FOG floats to the surface and creates a surface film that: reduces oxygen transfer into the waste mass (increasing anaerobic decomposition and gas production); creates a flammable surface layer; and, if displaced in a spill or overflow event, coats adjacent surfaces and soil.

## 3.3 Solid and Particulate Byproducts

### Dried and Aerosolized Solids

During active offloading operations, solid particles in the raw sewage stream can be aerosolized by the pressure differential of the vacuum truck discharge. These particles carry the full pathogen load of the raw sewage. Once dried on surfaces — fences, vehicles, buildings, vegetation — they can be resuspended by wind and transported to adjacent properties.

### Biofilm and Surface Contamination

The exterior surfaces of the FRAC tank and surrounding ground area develop biofilm — colonies of pathogenic bacteria embedded in a protective polysaccharide matrix. These biofilms are resistant to casual cleaning and maintain infectious potential for extended periods. Worker contact with tank exterior surfaces without appropriate PPE creates a direct personal injury pathway.

### Grit and Screenings

Raw porta-potty waste contains inorganic grit and debris (sand, gravel, trash, wipes, hygienic products). In a compliant treatment operation, grit is removed in enclosed receiving structures before any open-air handling. At an open-air transfer yard, grit and solids are present throughout the offloading area and the ground surface around the IBC totes and tank, where they can contaminate stormwater runoff.

## 4. CONSOLIDATED HAZARD MATRIX

Substance	Type	Health Risk	Environmental Risk	Regulatory Framework
Hydrogen Sulfide (H <sub>2</sub> S)	Gas	Olfactory fatigue; pulmonary edema; death at >500 ppm	Phytotoxic at 0.3 ppm; pine tree decline	OSHA PEL 20 ppm; Cal/OSHA Title 8 §5155; SDAPCD Rule 51
Methane (CH <sub>4</sub> )	Gas	Asphyxiation; explosion (LEL 5%–15%)	GHG; uncontrolled release	Cal/OSHA Title 8 §5189; CFC Ch. 53; NFPA 1/30/58
Ammonia (NH <sub>3</sub> )	Gas	Respiratory burns at 300 ppm; irritation at low ppm	Nitrogen deposition on soil/vegetation	OSHA PEL 50 ppm; SDAPCD Rule 51; HSC §41700
Carbon Dioxide (CO <sub>2</sub> )	Gas	Asphyxiation in confined spaces	GHG emissions	Cal/OSHA confined space §§5156-5159
VOCs / BTEX	Gas/Vapor	Carcinogens; neurotoxins (benzene)	Soil contamination; root zone damage	Clean Air Act; SDAPCD; Title 27 CCR
Formaldehyde vapors	Gas/Vapor	Probable carcinogen (IARC Group 2A)	Soil persistence	Cal OEHHA; SDAPCD; Hazcom (§5194)
Bioaerosols	Aerosolized particles	Norovirus, Hepatitis A/B, E. coli O157, Cryptosporidium	Pathogen deposition on adjacent properties	40 CFR Part 503; Cal/OSHA PPE/IIPP
Leachate / seepage	Liquid	Pathogen and chemical exposure via contact	Storm drain contamination; groundwater risk	CWA / NPDES; Water Code §13260; RWQCB WDRs
Chemical deodorizers (biocides)	Liquid in waste	Toxic to skin/mucous membranes	Soil microbiota disruption; vegetation harm	CalEPA Title 27; DTSC
Fats, oils, and grease (FOG)	Liquid	Flammable surface layer; skin irritant	Soil and drain clogging	CWA pretreatment; IWCP
Dried aerosolized solids	Particulate	Full pathogen load when resuspended	Surface contamination; wind transport	40 CFR Part 503; Cal/OSHA PPE
Biofilm on surfaces	Solid / biological	Direct contact infection risk	Persistent on surfaces; resistant to casual cleaning	Cal/OSHA PPE Title 8 §3380

## 5. BOTANICAL EVIDENCE OF ENVIRONMENTAL HARM — PINE TREE DECLINE

The historical satellite and ground-level photographic record at 6144 Federal Blvd. provides visual environmental evidence of the FRAC tank's cumulative impact on adjacent vegetation, and by extension, on the broader near-field environment.

Date	FRAC Tank Status	Pine Tree Condition
April 2007	Absent	Full, dense, healthy canopy
January 2023	Absent	Full, dense, healthy canopy
June 2023	Absent	Row of healthy full pine trees — no stress visible
February 2024	PRESENT (first satellite evidence)	Baseline at tank installation
June 2026	Present — active operation	Visibly stressed; thinning canopy; sparse needles

The temporal correlation is direct: the tree remained healthy through at least June 2023 with no FRAC tank present. The tank's first appearance in satellite imagery is February 2024. By June 2026 — approximately 24–28 months after tank activation — the tree shows unmistakable stress symptoms. Neighboring trees of the same species to the west show no comparable distress, functioning as a natural control group that eliminates regional drought, disease, or soil-wide deficiency as alternative explanations.

The three primary chemical mechanisms consistent with the observed decline are: (1) H<sub>2</sub>S phytotoxicity via cellular respiration disruption at concentrations as low as 0.3–1.0 ppm; (2) BTEX compound accumulation in root zone soil, inhibiting water and nutrient uptake; and (3) VOC deposition on needle surfaces, blocking stomata and degrading the waxy cuticle. The approximately two-year lag between tank activation and visible canopy stress is consistent with how chronic, low-level chemical stress accumulates in mature conifers before manifesting as visible decline.

## 6. OUTSTANDING AGENCY GAPS — PRIORITY ACTION ITEMS

Based on the agency communications reviewed, the following enforcement tracks have not yet been formally initiated as of June 15, 2026:

Agency	Basis	Priority
San Diego County DEHQ	Sewage Hauler Operating Permits — required per vehicle for all vacuum trucks; facility permit for the 6144 transfer station	CRITICAL — file immediately
RWQCB Region 9	Waste Discharge Requirements (WDRs) for on-site liquid waste storage; potential soil/storm drain contamination from corroded tank	CRITICAL — file immediately
Cal/OSHA (San Diego District)	H <sub>2</sub> S / ammonia PEL monitoring absent; no PPE at offloading point; 21,000-gallon frac tank	HIGH — cross-refer via SDAPCD and file

Agency	Basis	Priority
	is a permit-required confined space; no Injury and Illness Prevention Program evident	independently
SDFD Fire Prevention Division	CFC Chapters 53 & 57; NFPA 1/30/58; methane/H2S setback violations (4 ft from property line); no gas monitoring; explosion-proof equipment absent	HIGH — may be fastest route to physical tank removal
City of San Diego Code Enforcement / Planning	Conditional Use Permit status — standard equipment rental yard CUP does not cover a sewage transfer station; follow up on May 12 inquiry	MEDIUM — follow up on existing inquiry
SDAPCD	Confirm jurisdictional determination from management; confirm whether Rule 10 (Permit to Operate) review for frac tank is underway	ACTIVE — follow up within 48 hours

— END OF REPORT —

*This document is an analytical and informational overview prepared from the provided source files. It does not constitute legal advice.*