Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: January 30, 2025
Facility Name: Vopak Logistics Services USA, Inc.
Permit or Registration No.: 50025

Nature of Correspondence:
☐ Initial/New
☒ Response/Revision to TCEQ Tracking No.: 30098179 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☒ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☒ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

EngiCon
Environmental

1717 West 34th Street, Suite 600 #120
Houston, Texas 77018

January 30, 2025

Texas Commission on Environmental Quality
Attention: Waste Permits Division, MC-126
P.O. Box 13087
Austin, Texas 78711-3087

Subject: Permit Renewal Application – Response to Technical NOD #1
Hazardous Waste Permit No. 50025
Vopak Logistics Services USA, Inc.
Vopak Logistics Services USA Deer Park
2759 Independence Parkway South, Deer Park, Texas 77536
Tracking No. 30098179, CN 601527955 / RN 100223007

Dear Mr. Hassan,

On behalf of Vopak Logistics Services USA, Inc (Vopak), EngiCon Environmental, LLC (EngiCon) has prepared this response letter to the Texas Commission on Environmental Quality (TCEQ) notice of deficiency e-mail dated December 19, 2024 regarding the Hazardous Waste Permit Renewal Application for the Vopak Logistics Services USA Deer Park facility located at 2759 Independence Parkway South, Deer Park, Texas.

In general, the engineering items included in Appendix V.B.2 – Engineering Reports and Drawings, on Page 236 of Part B digital pdf, for the Container Storage Areas, and the engineering items included in Appendix V.C.2 – Engineering Reports and Drawings, on Page 277 of Part B digital pdf, for the Tanks and Tank Systems were part of the original engineering design prepared by H&M Design Inc. The engineering reports were certified by a professional engineer in 2001 and 2002, and were provided to TCEQ and approved as part of the current permit. These are included as part of this permit renewal application for reference only. EngiCon cannot modify or make any changes to these reports for proprietary reasons. However, EngiCon has prepared secondary containment calculations and were sealed by a professional engineer with EngiCon. All other items in the engineering reports provided as part of the permit renewal application were reviewed by EngiCon and were based on good engineering practice, including consideration of applicable industry standards.

Below are TCEQ's comments and Vopak responses. Additional attachments are also provided.

(T1) Application Part B Section V Page 220 Citation 30 TAC 305.45(a)(6)(A): Update the Facility Layout Plan to show the following HW management units: 05-T-44, 05-T-9C, 05-T-590, 05-V-1, 05-T-39, 05-T-40, 05-T-41, 05-T-42, and 05-V-2.

Response: The Facility Layout Plan is updated and attached as requested. Please note that 05-T-9C is closed, while 05-V-1 is closed and replaced by 05-V-2. Tanks 05-T-39, 05-T-40, 05-T-41, and 05-T42 are not built.

(T2) Application Part B Section V Appendix V.A Citation 30 TAC 305.45(a)(6)(D): Provide a map showing ownership of tracts of land adjacent to facility and within reasonable distance from proposed or existing activity. If this map is included in a location different from the one shown on this row, reference this location.

Response: The Adjacent Landowners Map and list of property owners is provided in Part B Section 1 – General Information under Appendix I.E – Map and List of Adjacent Landowners Page 44 of Part B digital pdf.

A copy is attached as part of this response letter.

(T3) Application Part B Section V Appendix V.A Citation 40 CFR 270.14(b)(19)(viii) – 270.14(b)(19)(xii): Provide a topographic map that shows the information required by 40 CFR 270.14(b)(19)(viii) – 270.14(b)(19)(xii).

Response: A Topographic Map showing the requested items is attached as part of this response letter. Due to scale of the drawing, the location of operational units, loading/unloading areas, and other structures (under 40 CFR (b)(19)(x) - (b)(19)(xii)) are shown on the revised Facility Layout Plan as indicated under (T1) above.

(T4) Application Part B Section V Page 257 Citation 40 CFR 264.175(b)(3): Provide drawing 05-10-0015. It was referenced in page 257 of the pdf digital Part B application, but it was no where to be found in the document.

Response: Drawing 05-10-0015 is attached as part of this response letter.

(T5) Application Part B Section V Page 235 Citation 40 CFR 264.175(b): Add the date of the Precipitation Data from NOAA Atlas 14 used in the secondary containment calculations for Container Storage area CSA 05-D-3 on page 235 pf the Part B Digital pdf.

Response: Secondary Containment Calculations for the Container Storage Areas are updated to include date of the Precipitation Data from NOAA Atlas 14 and are attached. NOAA released the updated precipitation data in September 2018, and the data was obtained in the calculations on July 18, 2024.

(T6) Application Part B Section V Pages 212, 234 and 257 Citation 40 CFR 264.175(b): Resolve the following inconsistency with respect to protection from rainfall for the containment system of CSA 05-D-1: Pg. 212 Section 5.0 states "CSA 05-D-1 is covered". Pgs. 233 and 234 also state this CSA is covered. Pg. 257 relates that each section of this CSA is covered with a roof for partial protection from rainfall. If the CSA is only partially covered, shouldn't there be some estimation for rainfall in the CSA calculations of its secondary containment in pgs. 233 and 234?

Response: Container Storage Area CSA 05-D-1 is covered and as shown on Drawing No. 05-10-0015. However, to account for precipitation, and based on the industry standard of the "rule of thumb" of 110% of the container capacity, the updated secondary containment calculations to include precipitation are attached.

(T7) Application Part B Section V Page 258 Citation 40 CFR 264.174: Add the following inspection items to the Container Storage Area(s) Inspection Checklist: safe container stacking, adequate aisle space, cracks or gaps in secondary containment, and cracks or ponding/wet spots in loading and unloading areas.

Response: The Container Storage Area Inspection Checklist for the facility is updated as requested and is attached as part of this submittal, for reference only.

Please note that the inspection checklist provided as part of the Engineering Report was prepared in 2001 by the design firm (H&M Design Inc.) and the inspection checklist is only a reference or is included as a recommendation. It is not inclusive, and it is not used onsite. The attached Container Storage Area Inspection Checklist is used onsite. However, Vopak does not wish to make it as part of the permit renewal application, as the inspection form may need to be updated frequently, depending on site conditions and site personnel.

(T8) Application Part B Section V Page 258 Citation 40 CFR 264.174: Add the frequency of inspection (i.e., daily, weekly, etc.) to the Container Storage Area(s) Inspection checklist.

Response: The Container Storage Area Inspection Checklist for the facility is updated as requested and is attached as part of this submittal, for reference only.

As indicated in the response under (T7) above, Vopak does not wish to make it as part of the permit renewal application, as the form may need to be updated frequently, depending on site conditions and site personnel.

(T9) Application Part B Section V Page 257 Citation 40 CFR 264.175(b): Provide drawing 05-10-0015 which was referenced on pg. 257 of the digital Part B application but it was not found.

Response: Drawing 05-10-0015 is attached as part of this submittal.

(T10) Application Part B Section V Pages 268-276 Citation 40 CFR 264.193(e)(1)(iii): Add the date of the "Precipitation Data from NOAA Atlas 14" used in the Secondary Containment Calculations in pages 268 – 276 of the Part B digital pdf.

Response: Secondary Containment Calculations for Storage Tanks are updated to include date of the Precipitation Data from NOAA Atlas 14 and are attached. NOAA released the updated precipitation data in September 2018, and the data was obtained in the calculations on July 18, 2024.

(T11) Application Part B Section V Pages 273, 296, 308 Citation 40 CFR 264.193(e)(1)(iii): Resolve discrepancy regarding the 24-hour 25-year rainfall event value shown in page 273 (12.3 inches) and pages 296 and 308 (approximately 9.9 inches).

Response: Secondary containment calculations are based on the Precipitation Data from NOAA Atlas 14 which was released in September 2018, while previous secondary containment calculations (and subsequently the engineering design) were based on Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Either way, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

(T12) Application Part B Section V Page 299 Citation 40 CFR 264.193(e)(1)(iii): Update Tank 05-T-39 Drawing 05-10-0004 to show the most current rainfall precipitation data. The rainfall data in this drawing appears to be from 2001, when it was P.E. stamped.

Response: Tank 05-T-39 is permitted under TCEQ Permit Unit No. 65 based on the original engineering design, and using the acceptable rainfall precipitation data based on the Rainfall Frequency Atlas of the United

States, Technical Paper 40, dated January 1963. Any future hazardous waste management units will be permitted based on the most up-to-date rainfall precipitation, and based on good engineering practice.

As indicated in the response under (T11) above, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

For the secondary containment calculations, refer to the Emulsified Oil Treatment System (EOTS) – Proposed: Secondary Containment Calculations. Drawing No. 05-10-0004 is provided for historical reference.

(T13) Application Part B Section V Page 302 Citation 40 CFR 264.193(e)(1)(iii): Update Tank 05-T-40 Drawing 05-10-0005 to show the most current rainfall precipitation data. The rainfall data in this drawing appears to be from 2001, when it was P.E. stamped.

Response: Tank 05-T-40 is permitted under TCEQ Permit Unit No. 66 based on the original engineering design, and using the acceptable rainfall precipitation data based on the Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Any future hazardous waste management units will be permitted based on the most up-to-date rainfall precipitation, and based on good engineering practice.

As indicated in the response under (T11) above, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

For the secondary containment calculations, refer to the Emulsified Oil Treatment System (EOTS) – Proposed: Secondary Containment Calculations. Drawing No. 05-10-0005 is provided for historical reference.

(T14) Application Part B Section V Page 320 Citation 40 CFR 264.193(b)(1): Provide the "Secondary Coating Report 05-200-0001" referenced in page 320 of the digital Part B application as it was not found within the application files.

Response: Secondary Coating Report 05-200-0001 is attached as part of this submittal.

(T15) Application Part B Section V Page 309 Citation 40 CFR 264.195(c)(2): Add inspection of the secondary containment to the external inspection checklist for hazardous waste active tanks as an additional item to be inspected each operating day for signs of deterioration or releases of hazardous waste.

Response: The Hazardous Waste Storage Tank Inspection Checklist for the facility is updated as requested and is attached as part of this submittal, for reference only.

Please note that the inspection checklist provided as part of the Engineering Report was prepared in 2001 by the design firm (H&M Design Inc.) and the inspection checklist is only a reference or is included as a recommendation. It is not inclusive, and it is not used onsite. The attached Hazardous Waste Storage Tank Inspection Checklist is used onsite. However, Vopak does not wish to make it as part of the permit renewal application, as the inspection form may need to be updated frequently, depending on site conditions and site personnel.

(T16) Application Part B Section V Page 309 Citation 40 CFR 264.195(h): Add language indicating that the daily inspection checklist information for hazardous waste active tanks will be documented in the Operating Record of the facility.

Response: The Hazardous Waste Storage Tank Inspection Checklist is for the facility is updated as requested and is attached as part of this submittal, for reference only.

As indicated in the response under (T15) above, Vopak does not wish to make it as part of the permit renewal application, as the form may need to be updated frequently, depending on site conditions and site personnel.

(T17) Application Part B Section V Citation 40 CFR 264.196: Add information to the application to indicate how this facility will comply with the requirements of 40 CFR 264.196 regarding response to leaks or spills and disposition of leaking or unfit-for-use tank systems.

Response: Refer to Part B Section V - 6.0 Tanks and Tank Systems subsection 6.6 Emergency Response on Page 217 of Part B digital which refers to the facility's Contingency Plan in Section III Appendix III.E on Page 109 of Part B digital for spill response and removal procedures. Additional information is provided in the facility's Inspection Schedule in Section III Appendix III.D on Page 95 pf Part B digital regarding the inspection of the tanks and tank systems, and secondary containment areas. Therefore, the facility implements procedures that detect leaks and response to leaks and spills in accordance with the regulations.

(T18) Application Part B Section V Pages 273, 329, 341 Citation 40 CFR 264.193(e)(1)(iii): Resolve discrepancy regarding the 24-hour 25-year rainfall event value shown in page 273 (12.3 inches) and pages 296 and 308 (approximately 9.9 inches).

Response: Secondary containment calculations are based on the Precipitation Data from NOAA Atlas 14 which was released in September 2018, while previous secondary containment calculations (and subsequently the engineering design) were based on Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Either way, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

(T19) Application Part B Section V Page 332 Citation 40 CFR 264.193(e)(1)(iii): Update Tank 05-T-41 Drawing 05-10-0006 to show the most current rainfall precipitation data. The rainfall data in this drawing appears to be from 2001, when it was P.E. stamped.

Response: Tank 05-T-41 is permitted under TCEQ Permit Unit No. 67 based on the original engineering design, and using the acceptable rainfall precipitation data based on the Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Any future hazardous waste management units will be permitted based on the most up-to-date rainfall precipitation, and based on good engineering practice.

As indicated in the response under (T11) above, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

For the secondary containment calculations, refer to the Emulsified Oil Treatment System (EOTS) – Proposed: Secondary Containment Calculations. Drawing No. 05-10-0006 is provided for historical reference.

(T20) Application Part B Section V Page 335 Citation 40 CFR 264.193(e)(1)(iii): Update Tank 05-T-42 Drawing 05-10-0007 to show the most current rainfall precipitation data. The rainfall data in this drawing appears to be from 2001, when it was P.E. stamped.

Response: Tank 05-T-42 is permitted under TCEQ Permit Unit No. 67 based on the original engineering design, and using the acceptable rainfall precipitation data based on the Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Any future hazardous waste management units will be permitted based on the most up-to-date rainfall precipitation, and based on good engineering practice.

As indicated in the response under (T11) above, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

For the secondary containment calculations, refer to the Emulsified Oil Treatment System (EOTS) – Proposed: Secondary Containment Calculations. Drawing No. 05-10-0007 is provided for historical reference.

(T21) Application Part B Section V Page 348 Citation 40 CFR 264.193(e)(1)(iii): Update Tank 05-T-42 Drawing 05-10-0001 to show the most current rainfall precipitation data. The rainfall data in this drawing appears to be from 2002, when it was P.E. stamped.

Response: Secondary containment calculations were based on the original engineering design, and using the acceptable rainfall precipitation data based on the Rainfall Frequency Atlas of the United States, Technical Paper 40, dated January 1963. Any future hazardous waste management units will be permitted based on the most up-to-date rainfall precipitation, and based on good engineering practice.

As indicated in the response under (T11) above, the stormwater collection system at the site has sufficient additional containment capacity to control a release from the hazardous waste management units at the site.

For the secondary containment calculations, refer to the Deepwell Injection Area: Secondary Containment Calculations. Drawing No. 05-10-0001 is provided for historical reference only.

(T22) Application Part B Section V Page 321 Citation 40 CFR 264.193(c)(3): Describe how the secondary containment for tanks 05-T-41 and 05-T-42 will be able to detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste within 24 hours.

Response: As indicated in Part B Section V Page 321 of the digital pdf., the tanks and tank systems will be located on a concrete slab with a wall that will be coated. Leak detection will be part of the required daily inspections, and specifically within the walled area to detect a hazardous waste release within 24 hours.

(T23) Application Part B Section V Citation 40 CFR 264.196: Specify the actions that will be implemented to comply or satisfy the requirements in 40 CFR 264.196 regarding "Response to leaks or spills and disposition of leaking or unfit-for-use tanks systems" for tanks 05-T-41 and 05-T-42.

Response: Refer to response under (T17).

(T24) Application Part B Section V Citation 40 CFR 270.16(k): Please indicate how tanks 05-T-41 and 05-T-42 will comply with the requirements of 40 CFR 270.16(k) relating to air emissions control.

Response: Refer to Part B Section V Page 328 of digital pdf: Design Report for Tanks 05-T-41 and 05-T-42. Both tank vents will be connected to a carbon filter or thermal oxidizer to control air emissions from the site.

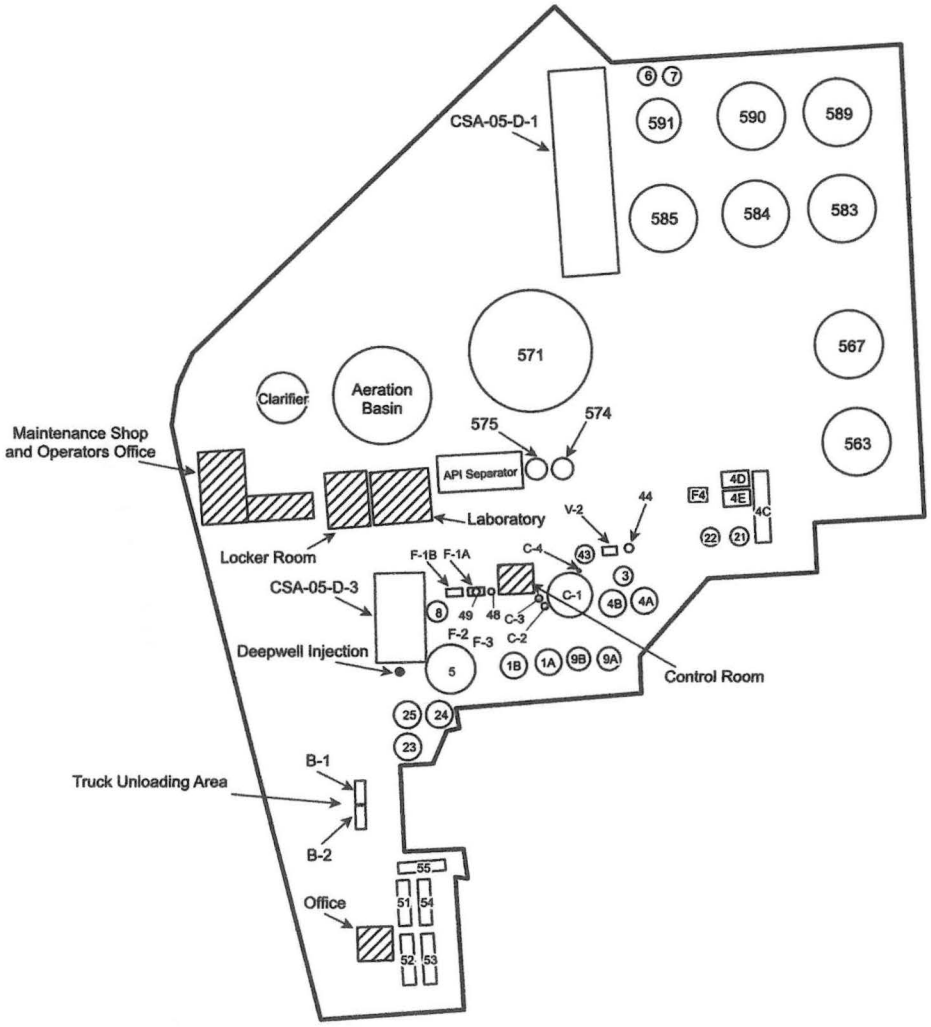
If you have any questions or if you require additional information regarding this submittal, please contact Mr. Emile Hanna with EngiCon Environmental LLC at (281) 910-9889 [redacted]

Sincerely,

Emile C. Hanna, P.E.
Principal
EngiCon Environmental, LLC

Cc: Ms. Shelby Cole, Environmental Waste Specialist, Vopak Terminal Deer Park, Inc.

Enclosure: Hazardous Waste Permit Renewal Application - Supporting Documentation



Legend

- Vopak Logistics Services USA Deer Park
- Tank
- Container Storage Area
- Sump
- Deepwell Injection
- Buildings & Structures

Source: Vopak Logistics Services USA, Inc., Based on Drawings by H+M Industrial EPC, and Hill Country Environmental, Inc.

Note: Drawing to be used for Permitting Purposes Only

Revision No.1
Date: January 20, 2025

Vopak Logistics Services USA, Inc.
2759 Independence Parkway South
Deer Park, Texas 77536

0 50 100 200 Feet

Scale 1" = 100'

Facility Layout Plan

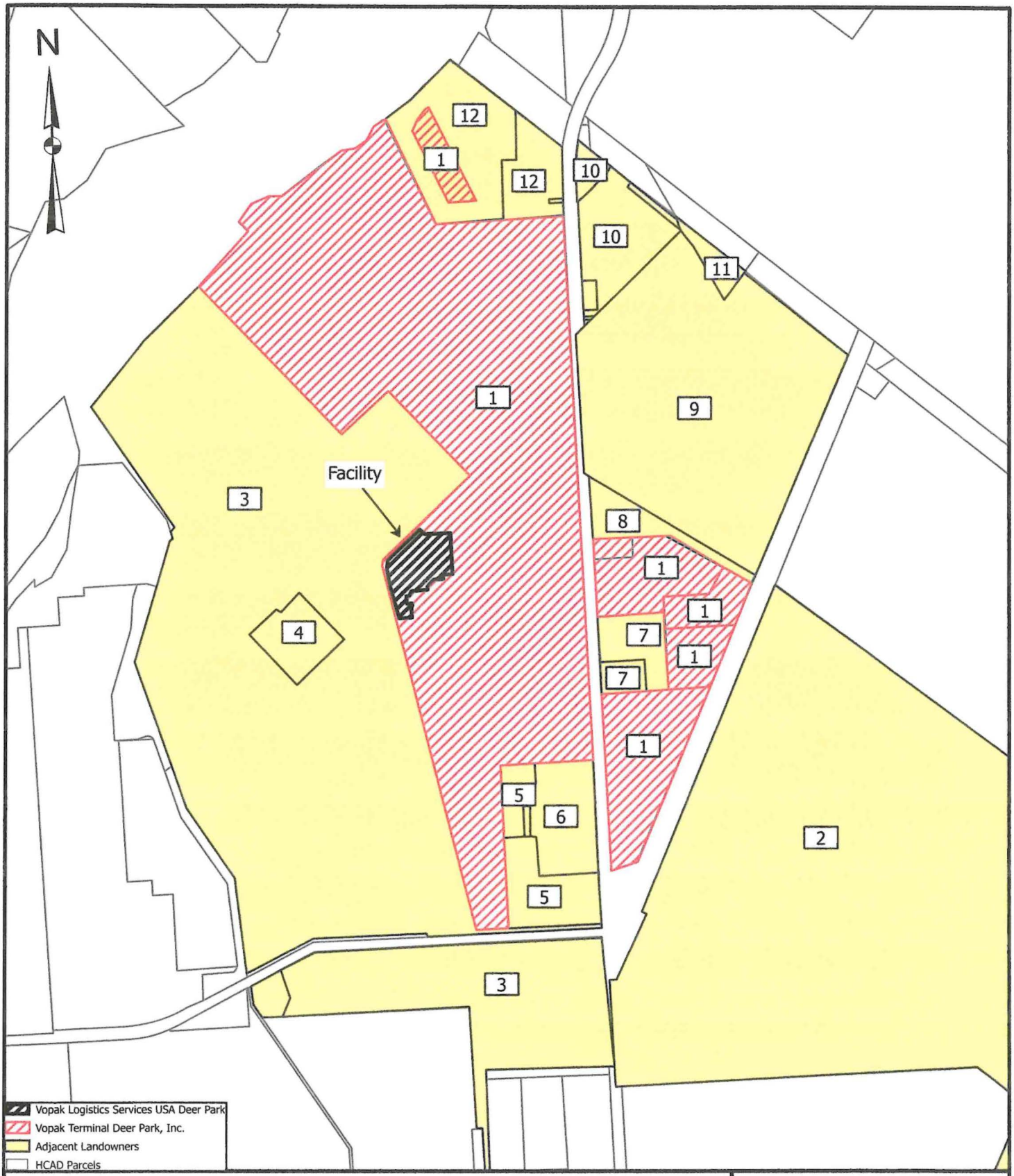
EngiCon Environmental

Date: July 31, 2024

Prepared By: EngiCon Environmental, LLC

Texas Registered Engineering Firm No. F-21692

APPENDIX I.E
MAP AND LIST OF ADJACENT LANDOWNERS



Source: Vopak Logistics Services USA, Inc., ArcGIS Data, and Harris County Appraisal District

Vopak Logistics Services USA, Inc.
2759 Independence Parkway South
Deer Park, Texas 77536

0 500 1,000 2,000 Feet

Scale 1" = 1,000'

Note: Drawing to be used for Permitting Purposes Only

Adjacent Landowners Map

EngiCon Environmental

Date: July 31, 2024

Prepared By: EngiCon Environmental, LLC

Texas Registered Engineering Firm No. F-21692

Key to Adjacent Landowners Map:

1. VOPAK TERMINAL NORTH AMERICA, INC.
   2759 INDEPENDENCE PARKWAY SOUTH
   DEER PARK, TEXAS

   VOPAK TERMINAL DEER PARK, INC.
   2759 INDEPENDENCE PARKWAY SOUTH
   DEER PARK, TEXAS

2. OCCIDENTAL CHEMICAL CORPORATION
   ATTN: TAX DEPT
   PO BOX 27570
   HOUSTON, TEXAS 77227-7570

3. INTERCONTINENTAL TERMINAL
   PO BOX 698
   DEER PARK, TEXAS 77536-0698

4. VALVOLINE OIL COMPANY
   ATTN: ASHLAND OIL INC.
   PO BOX 55630
   LEXINGTON, KENTUCKY 40555-5630

   GRP HOLDINGS LLC
   100 VALVOLINE WAY SUITE 200
   LEXINGTON, KENTUCKY 40509-2714

5. TM DEER PARK SERVICES, LP
   PO BOX 1914
   DEER PARK, TEXAS 77536-1914

6. DSI TRANSPORTS INC.
   ATTN: G WEED
   PO BOX 3500
   CALGARY, ALBERTA T29 2P9
   CANADA

7. ROBINSON PROPERTY HOLDINGS LLC
   C/O GP REAL ESTATE ADVISORS INC
   222 E CARRILLO STREET SUITE 111
   SANTA BARBARA, CALIFORNIA 93101-7148

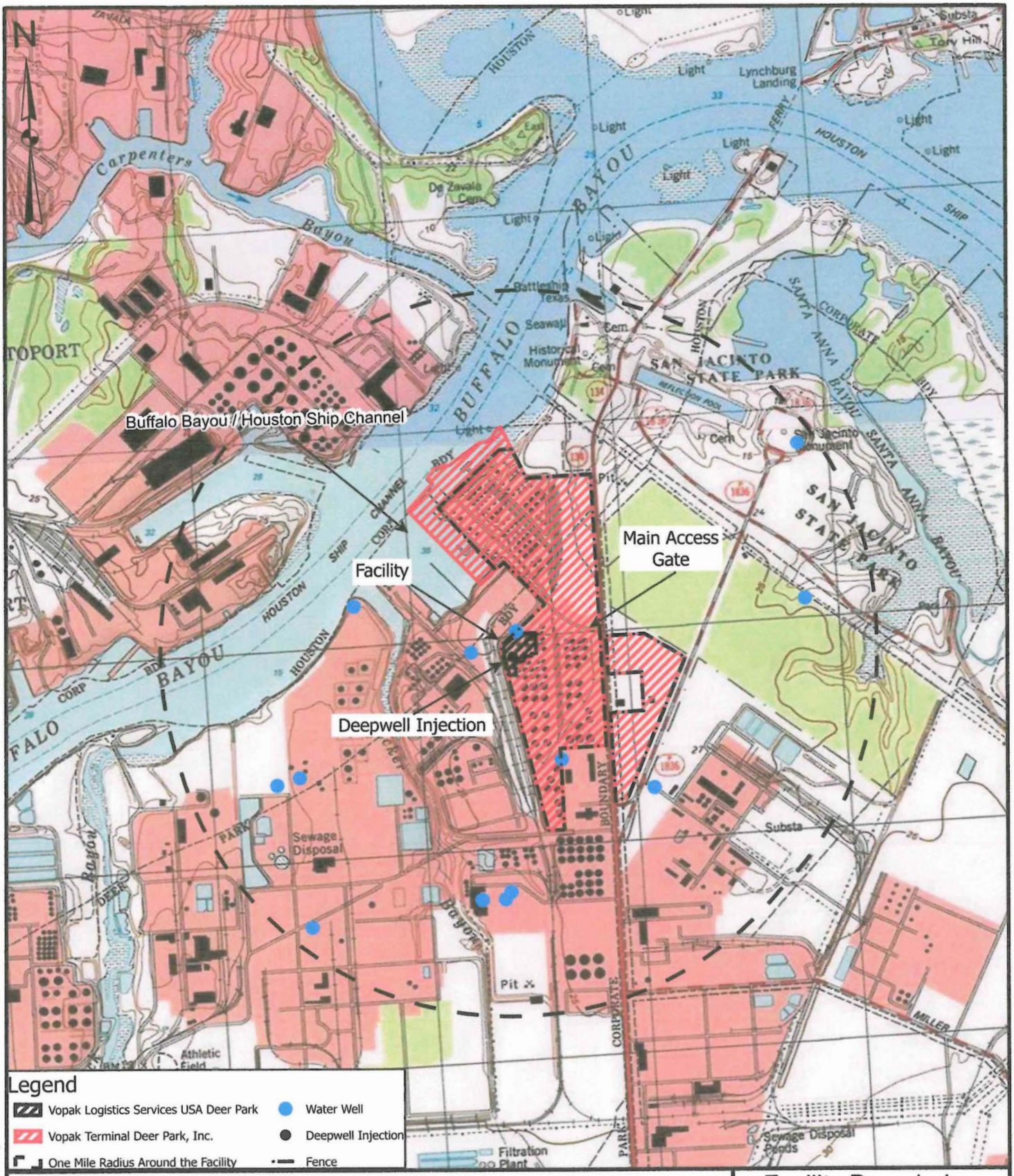
8. GULF SOUTH INTERMODAL INC.
   3433 HIGHWAY 190 PMB 316
   MANDEVILLE, LOUISIANA 70471-3101

9. STATE OF TEXAS
   PO BOX 1386
   HOUSTON, TEXAS 77251-1386

10. SAN JACINTO MUSEUM OF HISTORY
    1 MONUMENT CIRCLE
    LA PORTE, TEXAS 77571-9585

11. TEXAS PARKS AND WILDLIFE DEPARTMENT
    4200 SMITH SCHOOL ROAD
    AUSTIN, TEXAS 78744-3218

12. COASTAL INDUSTRIAL WATER AUTHORITY
    1200 SMITH STREET SUITE 2260
    HOUSTON, TEXAS 77002-4500



Source: Vopak Logistics Services USA, Inc., ArcGIS Data, and Harris County Appraisal District

Note: Drawing to be used for Permitting Purposes Only

Revision No.1
Date: January 20, 2025

Vopak Logistics Services USA, Inc.
2759 Independence Parkway South
Deer Park, Texas 77536

0 1,000 2,000 4,000 Feet

Scale 1" = 2,000'

Facility Boundaries and Adjacent Waters Map

EngiCon Environmental

Date: July 31, 2024

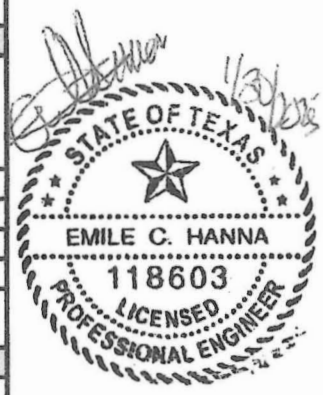
Prepared By: EngiCon Environmental, LLC

Texas Registered Engineering Firm No. F-21692

CONTAINER STORAGE AREA (CSA) 05-D-1
SECONDARY CONTAINMENT CALCULATIONS

Total Capacity = 89,760 gallons
Additional Bulk Storage Contents = 275-gallon and/or 330-gallon totes and 55-gallon drums.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		42.00	feet
Containment Width 1 =		38.00	feet
Containment Height 1 =		0.33	feet
Containment 1 Capacity =		532.00	$feet^3$
Containment Length 2 =		56.50	feet
Containment Width 2 =		18.50	feet
Containment Height 2 =		0.50	feet
Containment 2 Capacity =		1,045.25	$feet^3$
Underground Trench =			
Trench Length =		37.00	feet
Trench Width =		1.00	feet
Trench Depth =		0.75	feet
Underground Trench Capacity =		55.50	$feet^3$
Total Containment Capacity =		1,633	$feet^3$
		12,214	gallon
Displacement[2]			
Wood Pallet =			
Length =		4.00	feet
Width =		3.33	feet
Height =		0.25	feet
Displacement By One Wood Pallet =		3.33	$feet^3$
Displacement By 50 Wood Pallets in Area IA =		166.67	$feet^3$
Displacement By 30 Wood Pallets in Area IIA =		100.00	$feet^3$
Displacement By 30 Wood Pallets in Area IIB =		100.00	$feet^3$
Total Displacement =		366.67	$feet^3$
		2,743	gallon
Freeboard Calculation: Based on 110% Rule of Thumb[2]			
Largest Storage Container =		330	gallon
10% of Largest Storage Container =		33	gallon
Estimated Required Freeboard =		33	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		12,214	gallon
Total Displacement		2,743	gallon
Estimated Required Freeboard		33	gallon
Net Containment Capacity[3]		9,438	gallon
10% of Total Capacity	USE	8,976	gallon
Intermediate Bulk Container (330 gallon tote)		330	gallon
Additional Capacity[4]		462	gallon



(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Container Storage Areas will be located under a cover. Precipitation is accounted for windblown rain.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - 10% of Total Capacity.

Secondary Containment has sufficient capacity to contain contents of the largest container, and precipitation based on the "rule of thumb" of 110% of the container capacity.

CONTAINER STORAGE AREA (CSA) 05-D-1 - PROPOSED
SECONDARY CONTAINMENT CALCULATIONS

Total Capacity = 153,120 gallons
Additional Bulk Storage Contents = 275-gallon and/or 330-gallon totes and 55-gallon drums.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		42.00	feet
Containment Width 1 =		38.00	feet
Containment Height 1 =		0.33	feet
Containment 1 Capacity =		532.00	$feet^3$
Containment Length 2 =		56.50	feet
Containment Width 2 =		18.50	feet
Containment Height 2 =		0.50	feet
Containment 2 Capacity =		1,045.25	$feet^3$
Additional Containment Length 1 =		41.42	feet
Additional Containment Width 1 =		36.83	feet
Additional Containment Height 1 =		0.67	feet
Additional Containment 1 Capacity =		1,017.01	$feet^3$
Additional Containment Length 2 =		41.42	feet
Additional Containment Width 2 =		36.83	feet
Additional Containment Height 2 =		0.67	feet
Additional Containment 2 Capacity =		1,017.01	$feet^3$
Additional Containment Area IB =		193.00	$feet^3$
Underground Trench =			
Trench Length =		37.00	feet
Trench Width =		1.00	feet
Trench Depth =		0.75	feet
Underground Trench Capacity =		55.50	$feet^3$
Total Containment Capacity =		3,860	$feet^3$
		28,873	gallon
Displacement[2]			
Wood Pallet =			
Length =		4.00	feet
Width =		3.33	feet
Height =		0.25	feet
Displacement By One Wood Pallet =		3.33	$feet^3$
Displacement By 50 Wood Pallets in Area IA =		166.67	$feet^3$
Displacement By 0 Wood Pallets in Area IB =		0.00	$feet^3$
Displacement By 30 Wood Pallets in Area IIA =		100.00	$feet^3$
Displacement By 30 Wood Pallets in Area IIB =		100.00	$feet^3$
Displacement By 48 Wood Pallets in Area III =		160.00	$feet^3$
Displacement By 48 Wood Pallets in Area IV =		160.00	$feet^3$
Total Displacement =		686.67	$feet^3$
		5,137	gallon
Freeboard Calculation: Based on 110% Rule of Thumb[2]			
Largest Storage Container =		330	gallon
10% of Largest Storage Container =		33	gallon
Estimated Required Freeboard =		33	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		28,873	gallon
Total Displacement		5,137	gallon
Estimated Required Freeboard		33	gallon
Net Containment Capacity[3]		23,703	gallon
10% of Total Capacity	USE	15,312	gallon
Intermediate Bulk Container (330 gallon tote)		330	gallon
Additional Capacity[4]		8,391	gallon

(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
Proposed Containment Areas are based on Vopak Logistics Services USA Deer Park.
(2) Container Storage Areas will be located under a cover. Precipitation is accounted for windblown rain.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - 10% of Total Capacity.

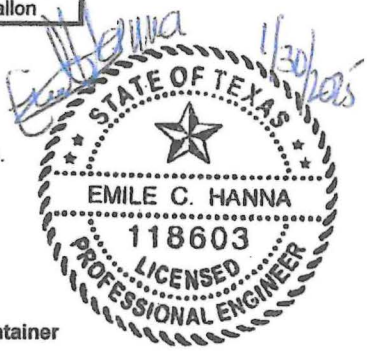
Secondary Containment has sufficient capacity to contain contents of the largest container, and precipitation based on the "rule of thumb" of 110% of the container capacity.

CONTAINER STORAGE AREA (CSA) 05-D-3
SECONDARY CONTAINMENT CALCULATIONS

Total Capacity = 49,692 gallons
Bulk Storage Contents = Three 2-cubic yard bins; and Eight 25-cubic yard bins.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		100.00	feet
Containment Width 1 =		35.50	feet
Containment Height 1 =		0.25	feet
Containment 1 Capacity =		887.50	$feet^3$
Catch Basin Capacity			
Catch Basin Length =		2.00	feet
Catch Basin Width =		2.00	feet
Catch Basin Depth =		0.75	feet
Catch Basin Capacity =		6.00	$feet^3$
Total Containment Capacity =		894	$feet^3$
		6,684	gallon
Displacement[2]			
None.			
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		3,550	$feet^2$
Estimated Required Freeboard =		3,639	$feet^3$
		27,220	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		6,684	gallon
Total Displacement		0	gallon
Available Containment Capacity		6,684	gallon
Estimated Required Freeboard		27,220	gallon
Net Containment Capacity[3]		-20,536	gallon
10% of Total Capacity		4,969	gallon
Largest Container Capacity (25-cubic yard bin)	USE	5,050	gallon
Additional Capacity[4]		-25,586	gallon
Stormwater collection system does have additional capacity to collect a release and contain it onsite [5]			
Additional Secondary Containment Capacity [6]		216,695	gallon
Additional Net Containment Capacity		191,109	gallon

(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.
(5) The Stormwater Collection System has sufficient capacity to control a release from CSA 05-D-3 and to pump it to the Deepwell Injection Area for storage during a 25-year, 24-hour rain event.
(6) Additional Secondary Containment includes Deepwell Injection Area.



Secondary Containment has sufficient capacity to contain contents of the largest storage container and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

05-F-4 AREA
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity = 400 gallons
Additional Bulk Storage Contents = None.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length =		24.67	feet
Containment Width =		10.67	feet
Containment Height =		0.25	feet
Containment Capacity =		65.78	$feet^3$
Containment Sloped Length =		24.67	feet
Containment Sloped Width =		10.67	feet
Containment Sloped Depth=		0.25	feet
Containment Capacity =		32.89	$feet^3$
Underground Sump Area =		2.22	$feet^2$
Underground Sump Depth =		0.50	feet
Containment Capacity =		1.11	$feet^3$
Total Containment Capacity =		99.78	$feet^3$
Total Containment Capacity =		746	gallon
Displacement[2]			
None.			
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		263	$feet^2$
Estimated Required Freeboard =		270	$feet^3$
		2,017	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		746	gallon
Total Displacement		0	gallon
Available Containment Capacity		746	gallon
Estimated Required Freeboard		2,017	gallon
Net Containment Capacity[3]		-1,271	gallon
Size of 05-F-4		400	gallon
Additional Capacity[4]		-1,671	gallon
Stormwater collection system does have additional capacity to collect a release and contain it onsite [5]			
Additional Secondary Containment Capacity [6]		41,108	gallon
Additional Net Containment Capacity		39,437	gallon

(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.
(5) The Stormwater Collection System has sufficient capacity to control a release from 05-F-4
and to pump it to the 05-T-583 or 05-T-589 for storage during a 25-year, 24-hour rain event.
(6) Additional Secondary Containment includes EOTS.

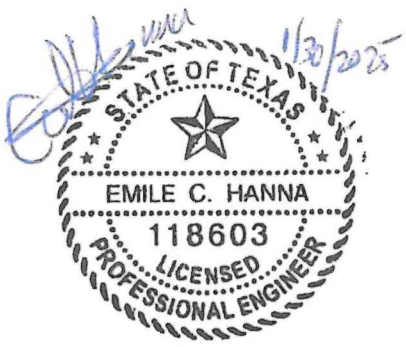
Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

500 SERIES STORAGE AREA
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-563) = 504,000 gallons

Additional Bulk Storage Contents = One 21,150-gallon storage tank (05-T-6) ; One 20,000-gallon storage tank (05-T-7); One 7,520-gallon acid tank; four 504,000-gallon storage tanks (05-T-567, 05-T-583, 05-T-589, and 05-T-590) and one 126,900-gallon storage tank (05-T-591) used to store hazardous waste. Two 504,000-gallon storage tanks are existing but closed (05-T-584 and 05-T-585).

Containment[1] - Concrete Wall		Dimensions	Unit
Containment Length 1 =		196.00	feet
Containment Width 1 =		155.00	feet
Containment Height 1 =		4.00	feet
Containment 1 Capacity =		121,520.00	$feet^3$
Containment Length 2 =		162.00	feet
Containment Width 2 =		78.00	feet
Containment Height 2 =		4.00	feet
Containment 2 Capacity =		50,544.00	$feet^3$
Total Containment Capacity =		172,064	$feet^3$
		1,287,128	gallon
Displacement[2]			
Volume of Tank 05-T-6 and 05-T-7			
Diameter =		12.00	feet
Height =		4.00	feet
Displacement By Each Tank 05-T-6 and 05-T-7		452.39	$feet^3$
Displacement By Tanks 05-T-6 and 05-T-7		904.78	$feet^3$
Volume of Acid Tank			
Diameter =		8.00	feet
Height =		4.00	feet
Displacement By Acid Tank		201.06	$feet^3$
Volume of Tanks 05-T-567, 583, 589 and 590			
Diameter =		46.50	feet
Height =		4.00	feet
Displacement By Each Tank		6,792.91	$feet^3$
Displacement By Tanks 567, 583, 589, and 590		27,171.63	$feet^3$
Volume of Tanks 05-T-584 and 585			
Diameter =		46.50	feet
Height =		4.00	feet
Displacement By Each Tank =		6,792.91	$feet^3$
Displacement By Tanks 584 and 585		13,585.82	$feet^3$
Volume of Tank 05-T-591			
Diameter =		30.00	feet
Height =		4.00	feet
Displacement By 05-T-591 =		2,827.43	$feet^3$
Total Displacement =		44,690.73	$feet^3$
		334,310	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		43,016	$feet^2$
Estimated Required Freeboard =		44,091	$feet^3$
		329,827	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		1,287,128	gallon
Total Displacement		334,310	gallon
Available Containment Capacity		952,818	gallon
Estimated Required Freeboard		329,827	gallon
Net Containment Capacity[3]		622,992	gallon
Size of Tank 05-T-563		504,000	gallon
Additional Capacity[4]		118,992	gallon



(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

DEEPWELL INJECTION AREA
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-5) = 200,000 gallons
Additional Bulk Storage Contents = One 50,000-gallon storage tank (05-T-1B) ; One 15,994-gallon storage tank (05-T-43); One 2,632-gallon storage tank (05-T-44); One 20,000-gallon storage tank (05-T-3); One 21,000-gallon storage tank (05-T-4B); One 20,305-gallon storage tank (05-T-8); One 24,000-gallon storage tank (05-T-9A); One 21,000-gallon storage tank (05-T-9B); One 74,000-gallon clarifier tank (05-C-1); One 1,175-gallon clarifier tank tank (05-C-2); One 2,277-gallon clarifier tank (05-C-3); One 288-gallon clarifier tank (05-C-4); Two 958-gallon filters (05-F-1A and 05-F-1B); Two 24-gallon Cartridge Filters (05-F-2 and 05-F-3); One 1,190-gallon storage tank (05-T-48) and One 2,490-gallon storage tank (05-T-49) used to store hazardous waste. Several others are closed (e.g., 05-T-1A, and 05-T-4A).

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		99.00	feet
Containment Width 1 =		85.67	feet
Containment Height 1 =		3.75	feet
Containment 1 Capacity =		31,803.75	$feet^3$
Containment Length 2 =		75.67	feet
Containment Width 2 =		12.50	feet
Containment Height 2 =		3.75	feet
Containment 2 Capacity =		3,546.88	$feet^3$
Containment Length 3 =		49.50	feet
Containment Width 3 =		33.50	feet
Containment Height 3 =		3.75	feet
Containment 3 Capacity =		6,218.44	$feet^3$
Containment Length 4 =		60.17	feet
Containment Width 4 =		35.83	feet
Containment Height 4 =		3.75	feet
Containment 4 Capacity =		8,084.90	$feet^3$
Containment Length 5 =		64.89	feet
Containment Width 5 =		42.34	feet
Containment Height 5 =		3.75	feet
Containment 5 Capacity =		5,150.97	$feet^3$
Total Containment Capacity =		54,805	$feet^3$
		409,969	gallon
Displacement[2]			
Volume of Tank 05-T-8			
Diameter =		12.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-8		424.12	$feet^3$
Volume of Tank 05-T-48			
Diameter =		6.20	feet
Height =		3.75	feet
Displacement By Tank 05-T-48		113.22	$feet^3$
Volume of Tank 05-T-49			
Diameter =		8.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-49		188.50	$feet^3$
Volume of Tank 05-T-1A			
Diameter =		19.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-1A		1,063.23	$feet^3$
Volume of Tank 05-T-1B			
Diameter =		20.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-1B		1,178.10	$feet^3$
Volume of Tank 05-T-9A			
Diameter =		16.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-9A		753.98	$feet^3$
Volume of Tank 05-T-9B			
Diameter =		15.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-9B		662.68	$feet^3$

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STATE OF TEXAS
EMILE C. HANNA
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LICENSED
PROFESSIONAL ENGINEER

Volume of Tank 05-T-4A			
Diameter =		15.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-4A		662.68	$feet^3$
Volume of Tank 05-T-4B			
Diameter =		15.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-4B		662.68	$feet^3$
Volume of Tank 05-T-3			
Diameter =		12.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-3		424.12	$feet^3$
Volume of Tank 05-T-43			
Diameter =		12.00	feet
Height =		3.75	feet
Displacement By Tank 05-T-43		424.12	$feet^3$
Volume of Tank 05-T-44			
Diameter =		8.10	feet
Height =		3.75	feet
Displacement By Tank 05-T-44		193.24	$feet^3$
Volume of Tank 05-C-1			
Diameter =		30.00	feet
Height =		3.75	feet
Displacement By Tank 05-C-1		2,650.72	$feet^3$
Volume of Tank 05-C-2			
Diameter =		5.00	feet
Height =		3.75	feet
Displacement By Tank 05-C-2		73.63	$feet^3$
Volume of Tank 05-C-3			
Diameter =		5.00	feet
Height =		3.75	feet
Displacement By Tank 05-C-3		73.63	$feet^3$
Volume of Tank 05-C-4			
Diameter =		3.50	feet
Height =		3.75	feet
Displacement By Tank 05-C-4		36.08	$feet^3$
Volume of Tanks 05-T-23, T-24 and T-25			
Diameter =		12.00	feet
Height =		3.75	feet
Displacement By Tanks 05-T-23, T-24 and T-25		1,272.35	$feet^3$
Total Displacement =		10,857.05	$feet^3$
		81,216	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		14,615	$feet^2$
Estimated Required Freeboard =		14,980	$feet^3$
		112,058	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		409,969	gallon
Total Displacement		81,216	gallon
Available Containment Capacity		328,753	gallon
Estimated Required Freeboard		112,058	gallon
Net Containment Capacity[3]		216,695	gallon
Size of Tank 05-T-5		200,000	gallon
Additional Capacity[4]		16,695	gallon

(1) Field data was collected on July 3rd 2024.
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(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

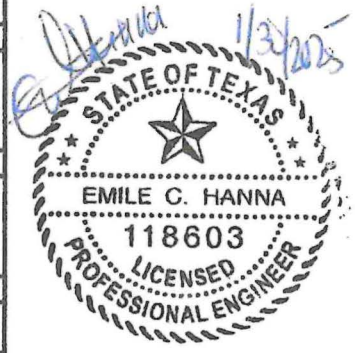
Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

EMULSIFIED OIL TREATMENT SYSYEM (EOTS)
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-4C) = 23,000 gallons

Additional Bulk Storage Contents = Two 4,625-gallon storage tanks (05-T-4D and 05-T-4E), and two 19,990-gallon storage tank (05-T-21 and 05-T-22), used to store hazardous waste.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length =		60.00	feet
Containment Width =		55.00	feet
Containment Height =		3.00	feet
Containment Capacity =		9,900	$feet^3$
Underground Sump Area =		54.38	$feet^2$
Underground Sump Depth =		3.00	feet
Containment Capacity =		163.13	$feet^3$
Total Containment Capacity =		10,063	$feet^3$
Total Containment Capacity =		75,277	gallon
Displacement[2]			
Volume of Tank 05-T-21			
Diameter =		12.00	feet
Height =		3.00	feet
Displacement By Tank 05-T-21		339.29	$feet^3$
Volume of Tank 05-T-22			
Diameter =		12.00	feet
Height =		3.00	feet
Displacement By Tank 05-T-22		339.29	$feet^3$
Concrete Base for 05-T-4D and 05-T-4E			
Length =		8.50	feet
Width =		0.83	feet
Depth =		0.67	feet
		18.89	$feet^3$
Volume of 05-T-4D and 05-T-4E			
Partially Filled Tanks		1.17	feet
Length =		17.00	feet
Diameter =		6.67	feet
		543.50	$feet^3$
Total Tanks Displacement =		1,241	$feet^3$
Total Displacement =		9,283	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		3,246	$feet^2$
Estimated Required Freeboard =		3,327	$feet^3$
		24,886	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		75,277	gallon
Total Displacement		9,283	gallon
Available Containment Capacity		65,994	gallon
Estimated Required Freeboard		24,886	gallon
Net Containment Capacity[3]		41,108	gallon
Size of Tank 05-T-4C		23,000	gallon
Additional Capacity[4]		18,108	gallon



(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

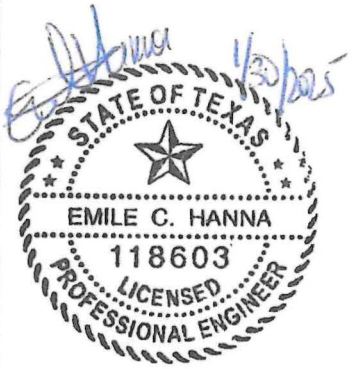
Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

EMULSIFIED OIL TREATMENT SYSYEM (EOTS) - PROPOSED SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-39) = 20,305 gallons

Additional Bulk Storage Contents = Three 20,305-gallon storage tanks (05-T-40, 05-T-41 and 05-T-42), and two 19,990-gallon storage tank (05-T-21 and 05-T-22), used to store hazardous waste.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length =		60.00	feet
Containment Width =		55.00	feet
Containment Height =		3.00	feet
Containment Capacity =		9,900	$feet^3$
Underground Sump Area =		54.38	$feet^2$
Underground Sump Depth =		3.00	feet
Containment Capacity =		163.13	$feet^3$
Total Containment Capacity =		10,063	$feet^3$
Total Containment Capacity =		75,277	gallon
Displacement[2]			
Volume of Tank 05-T-21			
Diameter =		12.00	feet
Height =		3.00	feet
Displacement By Tank 05-T-21		339.29	$feet^3$
Volume of Tank 05-T-22			
Diameter =		12.00	feet
Height =		3.00	feet
Displacement By Tank 05-T-22		339.29	$feet^3$
Concrete Base for 05-T-39, T-40, T-41 and T-42			
Length =		6.75	feet
Surface Area =		118.37	$feet^2$
Depth =		1.17	feet
Displacement by Concrete Base =		552.42	$feet^3$
Volume of 05-T-40, 05-T-41 and 05-T-42			
Diameter =		12.00	feet
Height =		3.00	feet
		1,017.88	$feet^3$
Total Tanks Displacement =		2,249	$feet^3$
Total Displacement =		16,823	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		3,246	$feet^2$
Estimated Required Freeboard =		3,327	$feet^3$
		24,886	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		75,277	gallon
Total Displacement		16,823	gallon
Available Containment Capacity		58,455	gallon
Estimated Required Freeboard		24,886	gallon
Net Containment Capacity[3]		33,569	gallon
Size of Tank 05-T-39		20,305	gallon
Additional Capacity[4]		13,264	gallon



(1) Field data was collected on July 3rd 2024.
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(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

HEEL TANK AREA
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-52) = 12,000 gallons

Bulk Storage Contents = Two 10,400-gallon storage tanks (05-T-54 and 05-T-55) ; One 10,100-gallon storage tank (05-T-53); and one 11,700-gallon storage tank (05-T-51) used to store hazardous waste.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		40.50	feet
Containment Width 1 =		19.50	feet
Containment Height 1 =		3.50	feet
Containment 1 Capacity =		2,764.13	$feet^3$
Containment Length 2 =		74.33	feet
Containment Width 2 =		30.33	feet
Containment Height 2 =		3.50	feet
Containment 2 Capacity =		7,891.72	$feet^3$
Total Containment Capacity =		10,656	$feet^3$
		79,711	gallon
Displacement[2]			
Concrete Base 1 for Each Tank			
Length 1 =		8.00	feet
Width 1 =		4.00	feet
Depth 1 =		1.75	feet
Two Concrete Base 1 for Each Tank = X 2		112.00	$feet^3$
Concrete Base 2 for Each Tank			
Length 2 =		6.67	feet
Width 2 =		2.00	feet
Depth 2 =		1.08	feet
Two Concrete Base 2 for Each Tank = X 2		28.89	$feet^3$
Concrete Base 3 for Each Tank			
Length 3 =		6.67	feet
Width 3 =		2.00	feet
Depth 3 =		0.67	feet
		17.78	$feet^3$
Displacement by Each Tank Base =		158.67	$feet^3$
Total Displacement By Concrete Bases =		793.33	$feet^3$
Displacement by Tanks In Containment			
8 inches in Containment for Tank 05-T-51 =		60.46	$feet^3$
8 inches in Containment for Tank 05-T-53 =		59.33	$feet^3$
8 inches in Containment for Tank 05-T-54 =		61.10	$feet^3$
8 inches in Containment for Tank 05-T-55 =		61.10	feet
Displacement by Tanks In Containment		241.99	$feet^3$
		1,035.32	$feet^3$
		7,745	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		3,045	$feet^2$
Estimated Required Freeboard =		3,121	$feet^3$
		23,344	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		79,711	gallon
Total Displacement		7,745	gallon
Available Containment Capacity		71,967	gallon
Estimated Required Freeboard		23,344	gallon
Net Containment Capacity[3]		48,623	gallon
Size of Tank 05-T-52		12,000	gallon
Additional Capacity[4]		36,623	gallon

(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.

(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.

(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.

(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

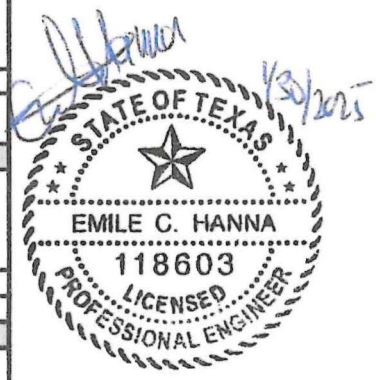
Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

TRUCK UNLOADING AREA
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity = 5,200 gallons

Additional Bulk Storage Contents = Three Tank Trucks (18-wheel trucks) each having 5,200-gallon storage capacity, and are used to unload hazardous waste onsite.

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length 1 =		103.00	feet
Containment Width 1 =		34.50	feet
Containment Height 1 =		0.42	feet
Containment 1 Capacity =		1,480.63	$feet^3$
Containment Length 2 =		9.50	feet
Containment Width 2 =		9.50	feet
Containment Height 2 =		0.42	feet
Containment 2 Capacity =		37.91	$feet^3$
Catch Basin Length =		3.00	feet
Catch Basin Width =		3.00	feet
Catch Basin Depth =		1.00	feet
Two Catch Basins Total Capacity =		18.00	$feet^3$
Trench Drain Length =		16.90	feet
Trench Drain Width =		1.00	feet
Trench Drain Depth =		0.25	feet
Two Trench Drains Total Capacity =		8.45	$feet^3$
Sump 05-B-1 and 05-B-2 Length =		15.50	feet
Sump 05-B-1 and 05-B-2 Width =		7.50	feet
Sump 05-B-1 and 05-B-2 Depth =		8.83	feet
Two Sumps Total Capacity =		2,053.75	$feet^3$
Total Containment Capacity =		3,599	$feet^3$
		26,920	gallon
Displacement[2]			
Truck with 18 wheels			
Diameter =		3.50	feet
Width =		0.75	feet
Truck's 18 wheels =		129.89	$feet^3$
Total Displacement, Four 18-wheel Trucks =		519.54	$feet^3$
Total Displacement, Four 18-wheel Trucks =		3,886	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		3,554	$feet^2$
Estimated Required Freeboard =		3,642	$feet^3$
		27,247	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		26,920	gallon
Total Displacement		3,886	gallon
Available Containment Capacity		23,034	gallon
Estimated Required Freeboard		27,247	gallon
Net Containment Capacity[3]		-4,213	gallon
Size of Tank Truck		5,200	gallon
Additional Capacity[4]		-9,413	gallon
Stormwater collection system does have additional capacity to collect a release and contain it onsite [5]			
Additional Secondary Containment Capacity [6]		25,407	gallon
Additional Net Containment Capacity		15,994	gallon

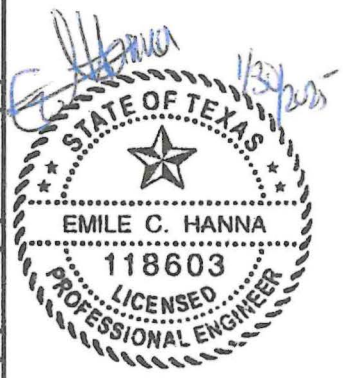


(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.
(5) The Stormwater Collection System has sufficient capacity to control a release from Truck Unloading Area and to pump it to the 05-T-583 or 05-T-589 for storage during a 25-year, 24-hour rain event.
(6) Additional Secondary Containment includes Storage Tanks 05-T-583 or 05-T-589.
Estimated Freeboard Capacity on 05-T-583 or 05-T-589 = 25,407 gallons.

WASTEWATER EMULSIFIED OIL TREATMENT SYSYEM (WW EOTS)
SECONDARY CONTAINMENT CALCULATIONS

Largest Tank Capacity (05-T-574) = 20,305 gallons
Additional Bulk Storage Contents = One 20,305-gallon hazardous waste storage tanks (05-T-575).

Containment[1] - Concrete Wall	Dimensions		Unit
Containment Length =		33.33	feet
Containment Width =		26.33	feet
Containment Height =		5.00	feet
Containment Capacity =		4,388.89	$feet^3$
Underground Sump Area =		2.25	$feet^2$
Underground Sump Depth =		0.50	feet
Containment Capacity =		1.13	$feet^3$
Total Containment Capacity =		4,390.01	$feet^3$
Total Containment Capacity =		32,840	gallon
Displacement[2]			
Concrete Base for Tank 05-T-574			
Length =		6.75	feet
Surface Area =		118.37	$feet^2$
Depth =		1.00	feet
Displacement By Concrete Base (Tank 05-T-574)		118.37	$feet^3$
Concrete Base for Tank 05-T-575			
Length =		6.75	feet
Surface Area =		118.37	$feet^2$
Depth =		1.00	feet
Displacement By Concrete Base (Tank 05-T-575)		118.37	$feet^3$
Volume of Tank 05-T-575			
Diameter =		12.00	feet
Height =		4.00	feet
Displacement By Tank 05-T-575		452.39	$feet^3$
Total Displacement =		689.14	$feet^3$
		5,155	gallon
Freeboard Calculation: Based on 25-Year, 24-Hour Rain Event[2]			
25 Year, 24-Hour Rain event =		1.03	feet
Total Containment Area =		878	$feet^2$
Estimated Required Freeboard =		900	$feet^3$
		6,730	gallon
Summary Calculations: Based on 25-Year, 24-Hour Rain Event			
Containment Capacity		32,840	gallon
Total Displacement		5,155	gallon
Available Containment Capacity		27,684	gallon
Estimated Required Freeboard		6,730	gallon
Net Containment Capacity[3]		20,954	gallon
Size of Tank 05-T-574		20,305	gallon
Additional Capacity[4]		649	gallon



(1) Field data was collected on July 3rd 2024.
Measurements were collected from the inside one wall to the inside of the next wall.
(2) Precipitation data from NOAA Atlas 14 https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html.
NOAA released the precipitation data in September 2018, and the data was obtained on July 18, 2024.
(3) Net Containment Capacity = Containment Capacity - Total Displacement - Required Freeboard.
(4) Additional Capacity is calculated as Net Containment Capacity - Capacity of Largest Container.

Secondary Containment has sufficient capacity to contain contents of the largest storage tank and precipitation based on a 25-year, 24-hour rain event (12.3 inches).

GROSS AREA

AREA IA, EXIST = 2040 FT^2
AREA IB, NEW = 385 FT^2
AREA IIA, EXIST = 1063 FT^2
AREA IIB, EXIST = 1063 FT^2
AREA III, NEW = 1510 FT^2
AREA IV, NEW = 1510 FT^2

GROSS CONTAINMENT

AREA IA, EXIST = 645 FT^3
AREA IB, NEW = 193 FT^3
AREA IIA, EXIST = 540 FT^3
AREA IIB, EXIST = 540 FT^3
AREA III, NEW = 1025 FT^3
AREA IV, NEW = 1031 FT^3

$V = A \cdot H$

AVAILABLE CONTAINMENT

GROSS CONTAINMENT LESS AREA FOR PALLETS:

AREA IA, EXIST = 451 FT^3 = 3374 GAL.
(62 PALLETS @ 3.13 FT^3 = 194 FT^3)
AREA IB, NEW = 193 FT^3 = 1444 GAL.
(NO STORAGE)
AREA IIA, EXIST = 424 FT^3 = 3172 GAL.
(37 PALLETS @ 3.13 FT^3 = 116 FT^3)
AREA IIB, EXIST = 424 FT^3 = 3172 GAL.
(37 PALLETS @ 3.13 FT^3 = 116 FT^3)
AREA III, NEW = 875 FT^3 = 6545 GAL.
(48 PALLETS @ 3.13 FT^3 = 150 FT^3)
AREA IV, NEW = 881 FT^3 = 6590 GAL.
(48 PALLETS @ 3.13 FT^3 = 150 FT^3)

1 FT^3 = 7.481 GAL.

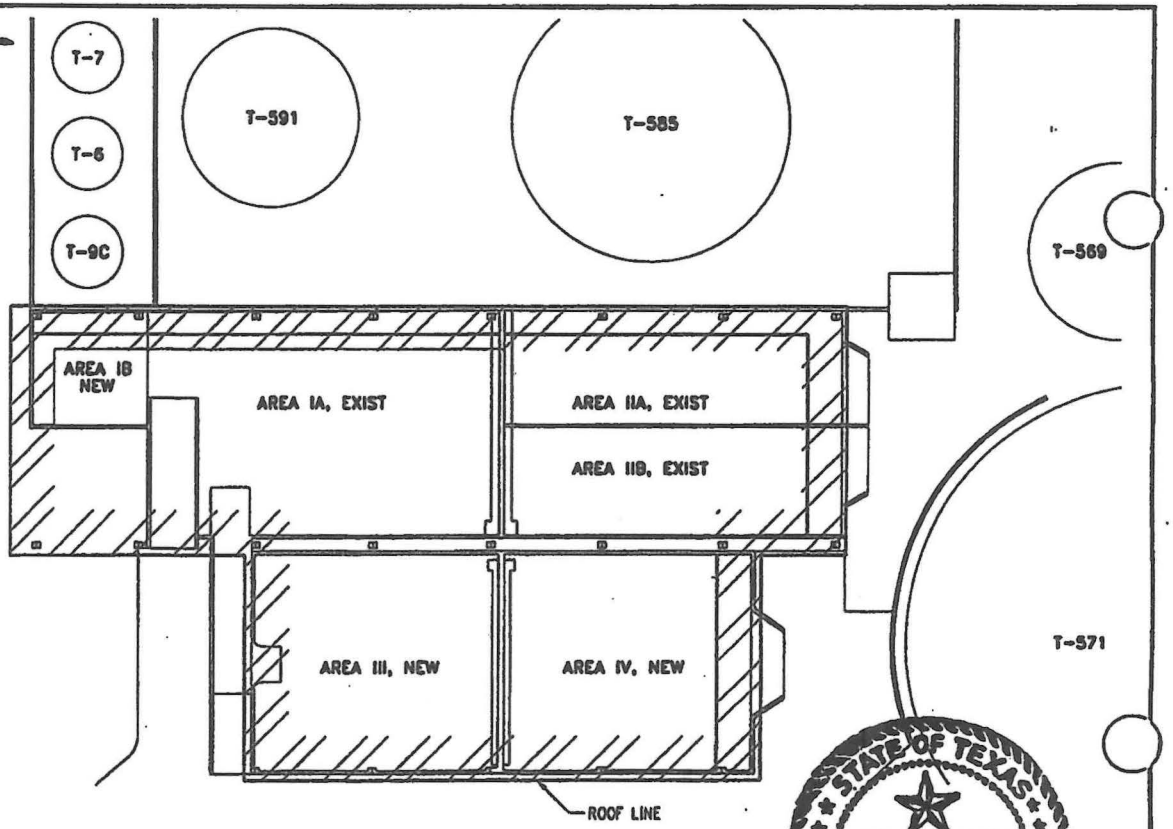
REQUIRED CONTAINMENT

10% OF TOTAL STORAGE CAPACITY

AREA IA, EXIST = 547 FT^3 = 4092 GAL.
AREA IB, NEW = 0 FT^3 = 0 GAL.
AREA IIA, EXIST = 326 FT^3 = 2442 GAL.
AREA IIB, EXIST = 326 FT^3 = 2442 GAL.
AREA III, NEW = 423 FT^3 = 3168 GAL.
AREA IV, NEW = 423 FT^3 = 3168 GAL.

MAXIMUM RAINFALL

(25 YEAR, 24 HOUR RAINFALL = 9.9")
AREA IA, EXIST = 207 FT^3 = 1549 GAL.
AREA IB, NEW = 52 FT^3 = 389 GAL.
AREA IIA, EXIST = 242 FT^3 = 1810 GAL.
AREA IIB, EXIST = 81 FT^3 = 609 GAL.
AREA III, NEW = 0 FT^3 = 0 GAL.
AREA IV, NEW = 172 FT^3 = 1287 GAL.



TOTAL CONTAINMENT REQUIRED

AREA IA, EXIST = 754 FT^3 = 5641 GAL. -ADDITIONAL CONTAINMENT OF 303 FT^3 (2267 GAL.) REQUIRED
AREA IB, NEW = 52 FT^3 = 389 GAL. -EXCESS CONTAINMENT OF 141 FT^3 (1055 GAL.)
AREA IIA, EXIST = 568 FT^3 = 4252 GAL. -ADDITIONAL CONTAINMENT OF 144 FT^3 (1080 GAL.) REQUIRED
AREA IIB, EXIST = 407 FT^3 = 3051 GAL. -EXCESS CONTAINMENT OF 16 FT^3 (121 GAL.)
AREA III, NEW = 423 FT^3 = 3168 GAL. -EXCESS CONTAINMENT OF 451 FT^3 (3377 GAL.)
AREA IV, NEW = 595 FT^3 = 4455 GAL. -EXCESS CONTAINMENT OF 285 FT^3 (2135 GAL.)

STATE OF TEXAS
LLOYD C. DOUD
14153
REGISTERED PROFESSIONAL ENGINEER
10-24-01

No.	Revision	Date	By	App.
0	ISSUED FOR CONSTRUCTION	APRIL 2001	TEH	
A	ISSUED FOR REVIEW	FEB 2001	TEH	

	Name:	Date:
Drawn	TEH	2-27-01
Approv. by	P.SMOLEN	
Engineer/Design Co.	H&M DESIGN, INC.	
CAD Name	05-10-0015.DWG	
Scale:	1" = 20.0'	

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INDUSTRIAL SERVICES
2759 Battleground Road
Deer Park, Texas 77536
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REPORTS FOR RCRA PART "B"
CONTAINMENT CALCULATIONS ~ 05-D-1
DRUM STORAGE EXPANSION
NOR #5

Sheet Size:	Location:	Job #:	Drawing Number:	Rev. #
B		853-EM	05-10-0015	0

AVAILABLE CONTAINMENT

GROSS CONTAINMENT AREA = 3101 FT^2

LESS AREA FOR:

T-39 AREA = 113 FT^2
T-40 AREA = 113 FT^2
T-41 AREA = 113 FT^2
T-21 AREA = 113 FT^2
T-22 AREA = 113 FT^2

NET AREA = 2536 FT^2 = A

A x H = V
7.481 GAL. = 1 FT^3

EXISTING CONTAINMENT CAPACITY:
2536 (A) x 3' (H) = 7,608 FT^3 (V) x 7.481
= 56,915 GAL. (AVAILABLE) 1

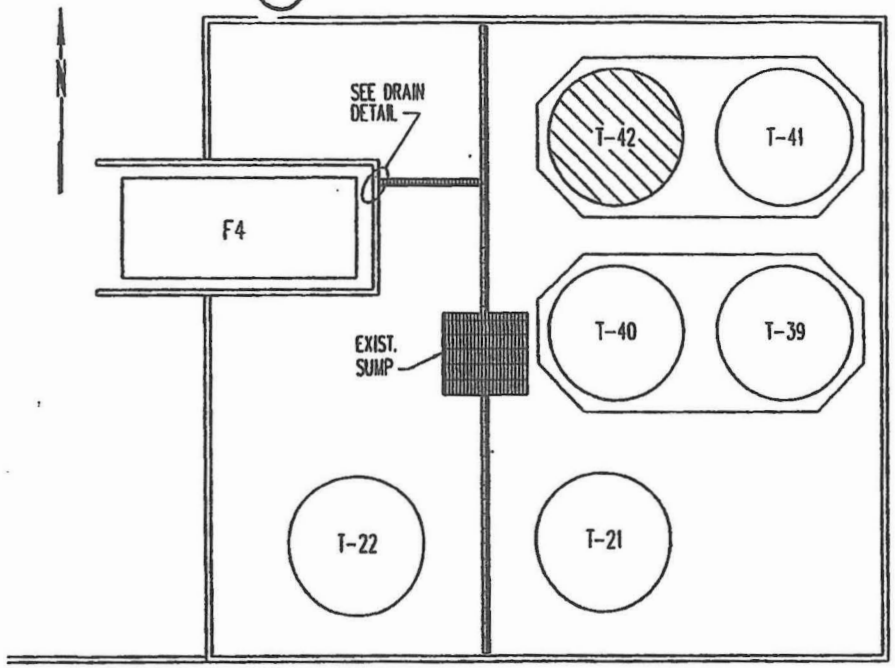
CONTAINMENT REQUIRED

LARGEST TANK CAPACITY = 20,305 GAL. (T-42)

25 YEAR, 24 HR. RAINFALL
0.825 x 3101 = 2558 FT^3 x 7.481 = 19,136 GAL.
= 39,441 GAL. (REQUIRED)

ADDITIONAL CAPACITY

56,915 GAL. (AVAILABLE)
- 39,441 GAL. (REQUIRED)
17,474 GAL. ADDITIONAL CAPACITY



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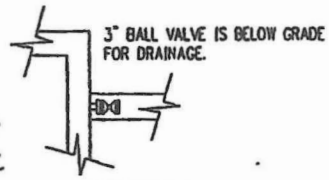
REGISTERED PROFESSIONAL ENGINEER
9-17-02



DRAIN DETAIL

CEA-00-N/A

No.	Revision	Date	By	App.
1	REVISED CONTAINMENT FOR 3'-0" TALL CONTAINMENT WALL	SEPT 2002	TEH	
0	ISSUED FOR CONSTRUCTION	OCT. 3 2001	J.M.	
A	ISSUED FOR REVIEW	SEPT 7 2001	J.M.	

	Name:	Date:
Drawn	J.M.	02/07/01
Approv. by	P.SMOLEN	
Engineer/Design Co.	HEM DESIGN, INC. 6602 SPENCER HWY. LA PORTE, TEXAS 77571 PH # (281) 930-9750	
CAD Name	05-10-0007 REV0.DWG	
Scale:	3/32"=1'-0"	

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REPORTS FOR RCRA PART "B"
SECONDARY CONTAINMENT - TANK 05-T-42
FUELS
NOR #86

Sheet Size:	Location:	Job #:	Drawing Number:	Rev. #
B		760-EM	05-10-0007	1

AVAILABLE CONTAINMENT

GROSS CONTAINMENT AREA = 3101 FT²

LESS AREA FOR:

T-39 AREA = 113 FT²
T-40 AREA = 113 FT²
T-41 AREA = 113 FT²
T-21 AREA = 113 FT²
T-22 AREA = 113 FT²

NET AREA = 2536 FT² = A

A x H = V
7.481 GAL. = 1 FT³

EXISTING CONTAINMENT CAPACITY:
2536 (A) x 3' (H) = 7,608 FT³(V) x 7.481
= 56,915 GAL. (AVAILABLE) 1

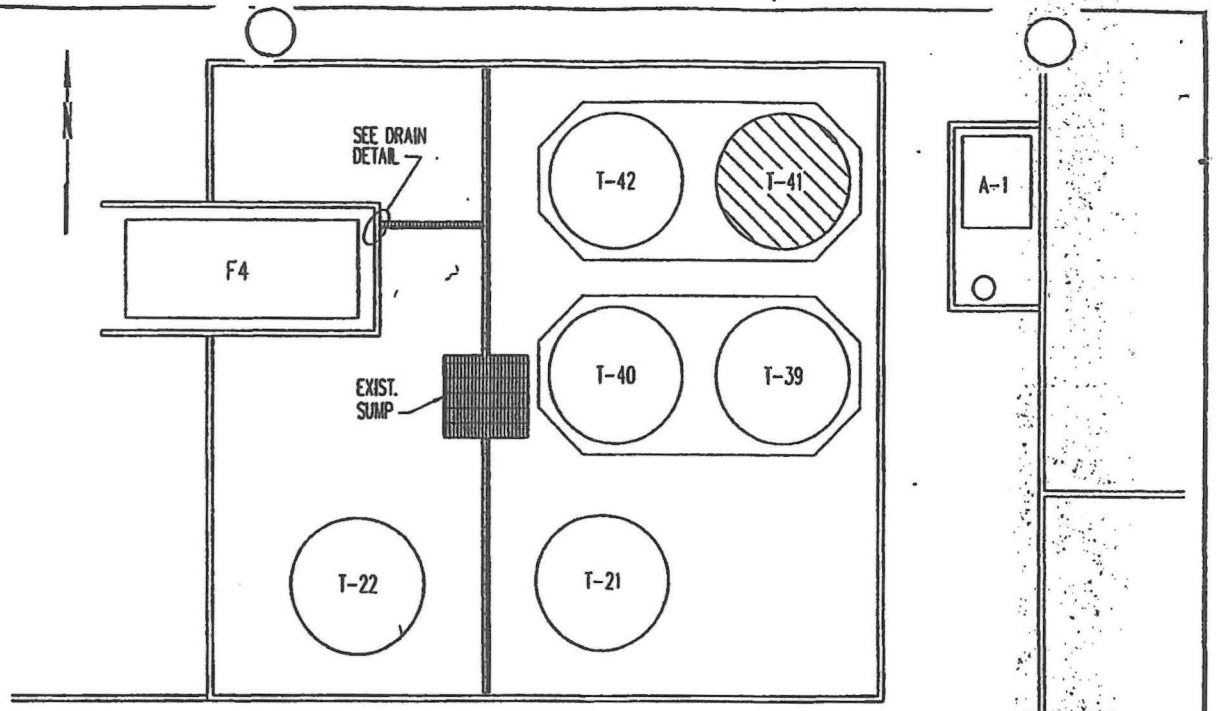
CONTAINMENT REQUIRED

LARGEST TANK CAPACITY = 20,305 GAL. (T-42)

25 YEAR, 24 HR. RAINFALL
0.825 x 3101 = 2558 FT² x 7.481 = 19,136 GAL.
= 39,441 GAL. (REQUIRED)

ADDITIONAL CAPACITY

56,915 GAL. (AVAILABLE)
- 39,441 GAL. (REQUIRED)
17,474 GAL. ADDITIONAL CAPACITY



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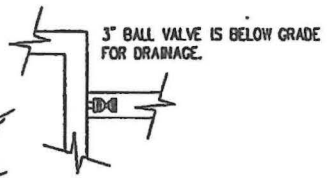
REGISTERED PROFESSIONAL ENGINEER
9-17-02



DRAIN DETAIL

CEA-00-N/A

No.	Revision	Date	By	App.
1	REVISED CONTAINMENT FOR 3'-0" TALL CONTAINMENT WALL	SEP 1 2002	VEH	
0	ISSUED FOR CONSTRUCTION	DEC 5 2001	J.M.	
A	ISSUED FOR REVIEW	FEB 7 2001	J.M.	

	Name:	Date:
Drawn	J.M.	02/07/01
Approv. by	P.SMOLEN	
Engineer/Design Co.	H&M DESIGN INC.	
CAD Name	05-10-0006 REV0.DWG	
Scale:	3/32"=1'-0"	

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REPORTS FOR RCRA PART "B"
SECONDARY CONTAINMENT - TANK 05-T-41
FUELS
NOR #85

Sheet Size:	Location:	Job #:	Drawing Number:	Rev. #
B		760-EM	05-10-0006	1

AVAILABLE CONTAINMENT

GROSS CONTAINMENT AREA = 3101 FT²

LESS AREA FOR:

T-39 AREA = 113 FT²
T-40 AREA = 113 FT²
T-41 AREA = 113 FT²
T-21 AREA = 113 FT²
T-22 AREA = 113 FT²

NET AREA = 2536 FT² = A

A² x H = V
7.481 GAL. = 1 FT³

EXISTING CONTAINMENT CAPACITY:
2536 (A) x 3' (H) = 7,608 FT³(V) x 7.481
= 56,915 GAL. (AVAILABLE) 1

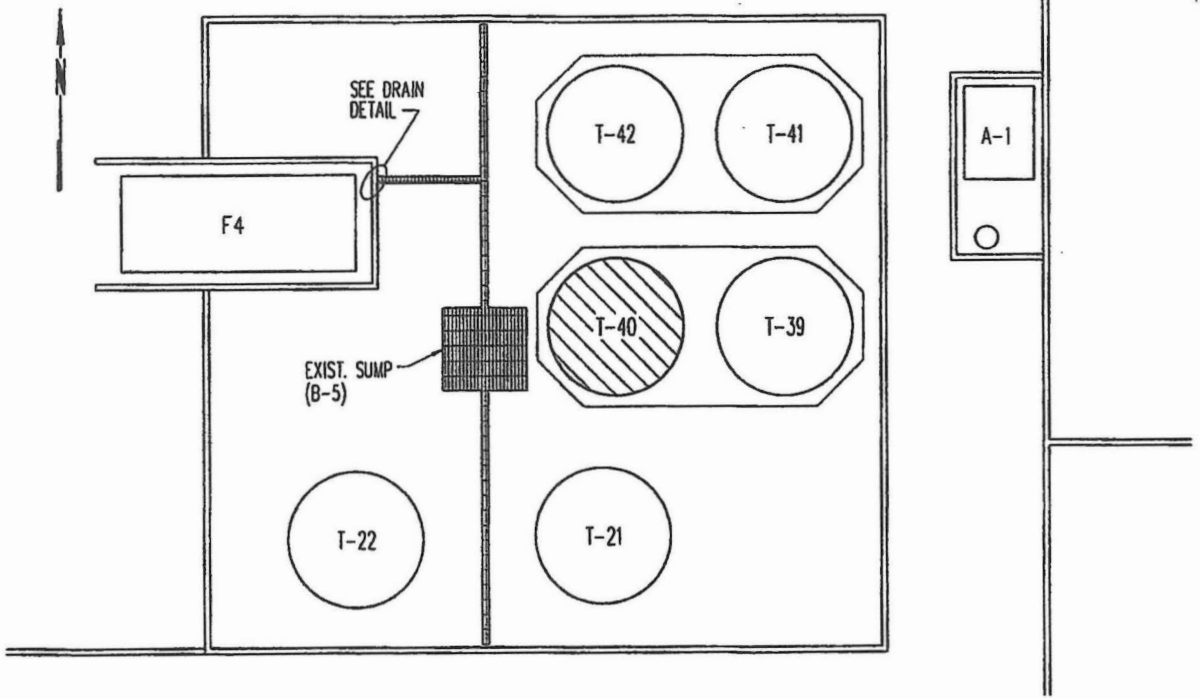
CONTAINMENT REQUIRED

LARGEST TANK CAPACITY = 20,305 GAL. (T-42)

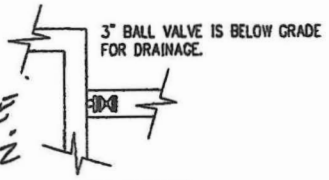
25 YEAR, 24 HR. RAINFALL
0.825 x 3101 = 2558 FT³ x 7.481 = 19,136 GAL.
= 39,441 GAL. (REQUIRED)

ADDITIONAL CAPACITY

56,915 GAL. (AVAILABLE)
- 39,441 GAL. (REQUIRED)
17,474 GAL. ADDITIONAL CAPACITY



STATE OF TEXAS
LLOYD C. DOUD
14153
REGISTERED PROFESSIONAL ENGINEER
P.E.
9-17-02



DRAIN DETAIL

CEA-00-N/A

No.	Revision	Date	By	App.
1	REVISED CONTAINMENT FOR 3'-0" TALL CONTAINMENT WALL	SEPT 2002	TEH	
0	ISSUED FOR CONSTRUCTION	DEC. 5 2001	J.M.	
A	ISSUED FOR REVIEW	NOV 7 2001	J.M.	

	Name:	Date:
Drawn	J.M.	02/07/01
Approv. by	P.SMOLEN	
Engineer/Design Co.	H&M DESIGN, INC. 8603 SPENCER HWY. LA PORTE, TEXAS 77571 PH # (281) 930-6750	
CAD Name	05-10-0005 REVO.DWG	
Scale:	3/32"=1'-0"	

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REPORTS FOR RCRA PART "B"
SECONDARY CONTAINMENT - TANK 05-T-40
EOTS
NOR #84

Sheet Size:	Location:	Job #:	Drawing Number:	Rev. #
B		760-EM	05-10-0005	1

AVAILABLE CONTAINMENT

GROSS CONTAINMENT AREA = 3101 FT^2

LESS AREA FOR:

T-39 AREA = 113 FT^2
T-40 AREA = 113 FT^2
T-41 AREA = 113 FT^2
T-21 AREA = 113 FT^2
T-22 AREA = 113 FT^2

NET AREA = 2536 FT^2 = A

A x H = V
7.481 GAL. = 1 FT^3

EXISTING CONTAINMENT CAPACITY:
2536 (A) x 3' (H) = 7,608 FT^3 (V) x 7.481
= 56,915 GAL. (AVAILABLE) 1

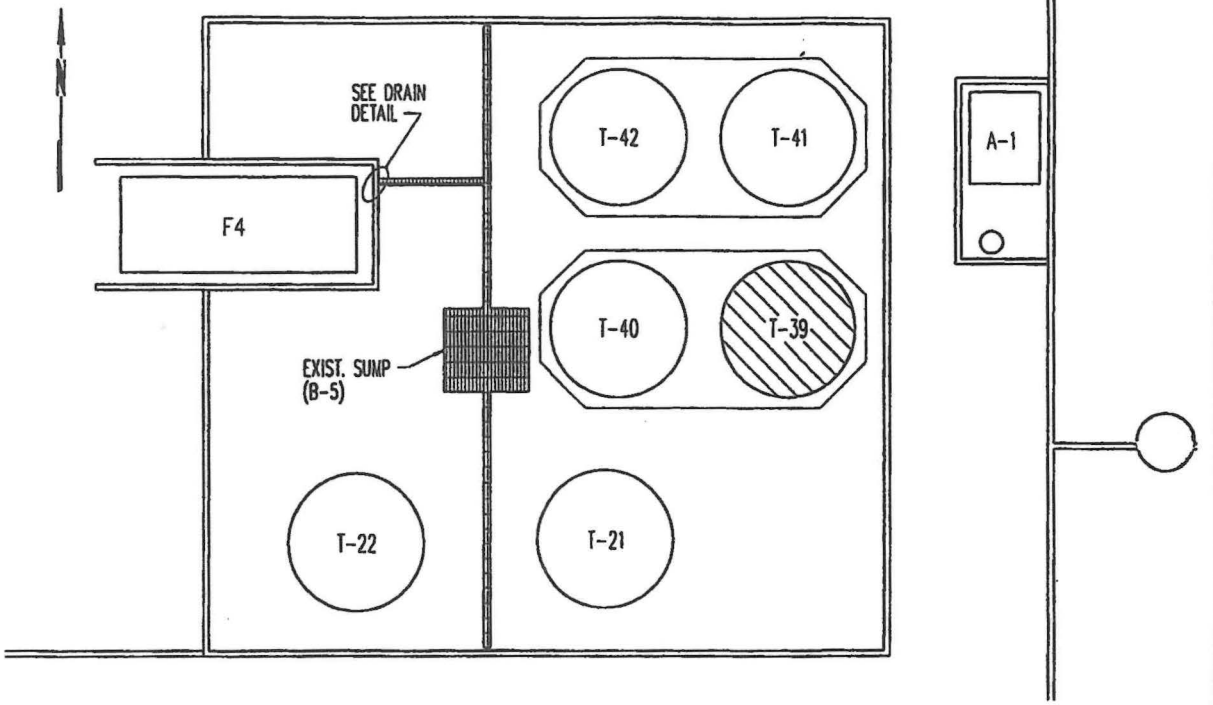
CONTAINMENT REQUIRED

LARGEST TANK CAPACITY = 20,305 GAL. (T-42)

25 YEAR, 24 HR. RAINFALL
0.825 x 3101 = 2558 FT^3 x 7.481 = 19,136 GAL.
= 39,441 GAL. (REQUIRED)

ADDITIONAL CAPACITY

56,915 GAL. (AVAILABLE)
- 39,441 GAL. (REQUIRED)
17,474 GAL. ADDITIONAL CAPACITY



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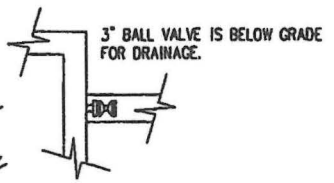
REGISTERED PROFESSIONAL ENGINEER
9-17-02



DRAIN DETAIL

CEA-00-N/A

No.	Revision	Date	By	App.
1	REVISED CONTAINMENT FOR 3'-0" TALL CONTAINMENT WALL	SEPT 2002	TEH	
0	ISSUED FOR CONSTRUCTION	OCT. 5 2001	J.M.	
A	ISSUED FOR REVIEW	FEB 7 2001	J.M.	

	Name:	Date:
Drawn	J.M.	02/07/01
Approv. by	P.SMOLEN	
Engineer/Design Co.	H&M DESIGN, INC. 6603 SPENCER HWY. LA PORTE, TEXAS 77571 PH # (281) 535-6759	
CAD Name	05-10-0004 REV0.DWG	
Scale:	3/32"=1'-0"	

Vopak
INDUSTRIAL SERVICES
2759 Battleground Road
Deer Park, Texas 77536
(281) 604-6150

REPORTS FOR RCRA PART "B"
SECONDARY CONTAINMENT - TANK 05-T-39
EOTS (ALT 1)
NOR #83

Sheet Size:	Location:	Job #:	Drawing Number:	Rev. #
B		760-EM	05-10-0004	1

RECEIVED
JUN 11 2025
WASTE PERMITS DIVISION
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Texas Commission on Environmental Quality
Waste Permits Division Correspondence Cover Sheet

Date: May 23, 2025
Facility Name: Vopak Logistics Services USA, Inc.
Permit or Registration No.: 50025

Nature of Correspondence:
☐ Initial/New
☒ Response/Revision to TCEQ Tracking No.: 30098179 (from subject line of TCEQ letter regarding initial submission)

Affix this cover sheet to the front of your submission to the Waste Permits Division. Check appropriate box for type of correspondence. Contact WPD at (512) 239-2335 if you have questions regarding this form.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Notifications
☐ New Notice of Intent	☐ Alternative Daily Cover Report
☐ Notice of Intent Revision	☐ Closure Report
☐ New Permit (including Subchapter T)	☐ Compost Report
☐ New Registration (including Subchapter T)	☐ Groundwater Alternate Source Demonstration
☐ Major Amendment	☐ Groundwater Corrective Action
☐ Minor Amendment	☐ Groundwater Monitoring Report
☐ Limited Scope Major Amendment	☐ Groundwater Background Evaluation
☐ Notice Modification	☐ Landfill Gas Corrective Action
☐ Non-Notice Modification	☐ Landfill Gas Monitoring
☐ Transfer/Name Change Modification	☐ Liner Evaluation Report
☐ Temporary Authorization	☐ Soil Boring Plan
☐ Voluntary Revocation	☐ Special Waste Request
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Other:
☐ Other:	

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Responses
☐ New	☐ Annual/Biennial Site Activity Report
☒ Renewal	☐ CPT Plan/Result
☐ Post-Closure Order	☐ Closure Certification/Report
☐ Major Amendment	☐ Construction Certification/Report
☒ Minor Amendment	☐ CPT Plan/Result
☐ CCR Registration	☐ Extension Request
☐ CCR Registration Major Amendment	☐ Groundwater Monitoring Report
☐ CCR Registration Minor Amendment	☐ Interim Status Change
☐ Class 3 Modification	☐ Interim Status Closure Plan
☐ Class 2 Modification	☐ Soil Core Monitoring Report
☐ Class 1 ED Modification	☐ Treatability Study
☐ Class 1 Modification	☐ Trial Burn Plan/Result
☐ Endorsement	☐ Unsaturated Zone Monitoring Report
☐ Temporary Authorization	☐ Waste Minimization Report
☐ Voluntary Revocation	☐ Other:
☐ 335.6 Notification	
☐ Other:	

EngiCon
Environmental

1717 West 34th Street, Suite 600 #120
Houston, Texas 77018

May 23, 2025

Texas Commission on Environmental Quality
Attention: Waste Permits Division, MC-126
P.O. Box 13087
Austin, Texas 78711-3087

Subject: Permit Renewal Application – Response to Technical NOD #2
Hazardous Waste Permit No. 50025
Vopak Logistics Services USA, Inc.
Vopak Logistics Services USA Deer Park
2759 Independence Parkway South, Deer Park, Texas 77536
Tracking No. 30098179, CN 601527955 / RN 100223007

Dear Mr. Hassan,

On behalf of Vopak Logistics Services USA, Inc (Vopak), EngiCon Environmental, LLC (EngiCon) has prepared this response letter to the Texas Commission on Environmental Quality (TCEQ) notice of deficiency e-mail dated April 22, 2025 regarding the Hazardous Waste Permit Renewal Application for the Vopak Logistics Services USA Deer Park facility located at 2759 Independence Parkway South, Deer Park, Texas.

In addition, and based on follow up e-mails from TCEQ between April 24, 2025 and May 1, 2025 further revisions were performed to update the tables associated with Appendix VII – Closure Plan as detailed below.

Below are TCEQ's comments and Vopak responses. Additional attachments are also provided.

- The Closure Cost Estimate for the Deepwell Injection Area may not include all waste storage capacity.

Response: Revised the Closure Cost Estimate for the Deepwell Injection Area to account for the total waste storage capacity, and the spreadsheet calculation was re-sealed by a Professional Engineer (PE). In addition, and during that time, the Closure Cost Estimate for the Heel Tank Area was also revised to account for the total waste storage capacity, and the spreadsheet calculation was re-sealed by a PE. Both revised closure cost estimates are attached as part of this response letter.

- To remove the units from the post-closure cost tables, please provide written correspondence with TCEQ or supporting documentation confirming that these units are closed no longer require any further action.

Response: Removed Contingent Closure Cost Estimate Centrifuge (Former Viscon) Area since this is in reference to Tank 05-V-1 (Permit Unit No. 56) and was closed. In addition, removed Contingent Closure Cost Estimate Part B Pad – Tank 02-T-3 Area since this is in reference to Railcar Cleaning Rack (Permit Unit No. 59) and was closed using a Class 2 modification dated September 23, 2009.

A copy of TCEQ letter dated February 13, 2020 and December 3, 2009 for the closures of Permitted Units No. 56 and No. 59, respectively, are attached as part of this response letter. In addition, attached is a copy from the Notice of Registration (NOR) showing that both Permitted Units No. 56 and No. 59 are closed.

In addition, updated Table VII.D – Unit Post Closure Cost Estimate and Table VII.E.2 – Permitted Unit Post Closure Cost Summary using 2024 inflation factors, and are attached as part of this response letter.

- Update Table VII.B – Unit Closure Cost Estimates.

Response: Table VII.B was updated as requested, and is attached as part of this response letter.

- Update Table VII.E.1 – Permitted Unit Closure Cost Summary using 2024 dollars.

Response: Table VII.E.1 was updated as requested, and is attached as part of this response letter.

- Update financial assurance documentation based on the revised cost estimates.

Response: The financial assurance documents are updated as requested and will be provided when ready.

If you have any questions or if you require additional information regarding this submittal, please contact Mr. Emile Hanna with EngiCon Environmental LLC at (281) 910-9889 or [redacted]

Sincerely,

Emile C. Hanna, P.E.
Principal
EngiCon Environmental, LLC

Cc: Ms. Shelby Cole, Environmental Waste Specialist, Vopak Terminal Deer Park, Inc.

Enclosure: Hazardous Waste Permit Renewal Application - Supporting Documentation

DEEPWELL INJECTION AREA
CLOSURE COST ESTIMATE

Table 1 - Estimated Costs Associated with Removal and Waste Disposal Activities

Item No.	Description - Removal & Waste Disposal Activities	Quantity	Unit	Unit Cost	Estimated Cost
1	Waste Removal (Four Technicians 10 hours at $125/hour)	40	hours	$125	$5,000
2	Hazardous Waste Transportation	518,352	gallon	$0.15	$77,753
3	Hazardous Waste Disposal	518,352	gallon	$0.50	$259,176
4	Stormwater Removal (Four Technicians 10 hours at $125/hour)	40	hours	$125	$5,000
5	Stormwater Waste Transportation	93,232	gallon	$0.15	$13,985
6	Stormwater Waste Disposal	93,232	gallon	$0.50	$46,616
	Total Estimated Cost				$407,529

Table 2 - Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities

Item No.	Description - Cleanup of Tanks, Equipment and Concrete	Quantity	Unit	Unit Cost	Estimated Cost
1	Tanks Cleanup (Four Technicians 24 hours at $125/hour)	96	hours	$125	$12,000
2	Washwater Transportation	51,835	gallon	$0.15	$7,775
3	Washwater Disposal	51,835	gallon	$0.50	$25,918
4	Concrete Cleanup (Four Technicians 20 hours at $125/hour)	80	hours	$125	$10,000
5	Washwater Transportation	1,461.50	gallon	$0.15	$219
6	Washwater Disposal	1,461.50	gallon	$0.15	$219
7	Contractor Management and Supervision	24	hours	$250	$6,000
9	Contractor Mobilization / Demobilization	1	Lump Sum	$5,000	$5,000
10	Laboratory Sampling and Analysis	10	Samples	$500	$5,000
	Total Estimated Cost				$72,131

Table 3 - Estimated Costs Associated with Site Cleanup

Item No.	Description - Site Security and Closure Report	Quantity	Unit	Unit Cost	Estimated Cost
1	Site Evaluation and Investigation	1	Lump Sump	$5,000	$5,000
2	Soil Excavation and Removal	40	hours	$250	$10,000
3	Soil Disposal	270.3	cubic yards	$170	$45,944
4	Soil Backfill	270.3	cubic yards	$100	$27,026
5	Contractor Mobilization / Demobilization	1	Lump Sum	$5,000	$5,000
6	Laboratory Sampling and Analysis	24	Samples	$500	$12,000
	Total Estimated Cost				$104,970

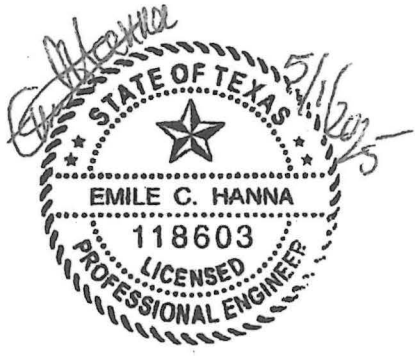
Table 4 - Estimated Costs Associated with General Administration of Closure

Item No.	Description - Site Security and Closure Report	Quantity	Unit	Unit Cost	Estimated Cost
1	Agency Notifications and Reporting	1	Lump Sump	$5,000	$5,000
2	Construction Coordination and Procurement	1	Lump Sump	$2,500	$2,500
	Total Estimated Cost				$592,131
3	Engineering and Consulting Services (20%)	20%			$118,426
4	Contingency (10%)	10%			$59,213
	Total Estimated Cost				**$769,770**

Notes:
1) Estimated costs are based on retaining a third party vendor to conduct final closure activities including contractors, consultants and engineers.
2) The total amount of waste to be managed at the time of closure is based on the maximum permitted capacity.
3) The estimated costs are based on 2023 US dollars in Houston, Texas.

Number of Tanks = 23
Total Waste Storage Capacity = 518,352 gallons
Stormwater is the average of two wettest consecutive months = 10.25 inches (0.854 feet)
Washwater generation rate = 0.1 gallons per square foot.
Rinsate (tank cleaning) generation rate = 10% of total waste storage capacity.
Secondary Containment Area = 14,615 square foot

Total Stormwater to be disposed offsite = 14,615 X 0.854 X 7.48052	93,231.79	gallons
Tank Cleaning Volume = 518,352 X 10%	51,835.20	gallons
Concrete Rinsate Volume = 14,615 X 0.1	1461.5	gallons
Soil Excavation, Depth (ft) =1		
Soil Removal = 0.5 X 14,615 / 27	270.3	cubic yards
Disposal Costs Per Drum	Cost ($)	
Hazardous Waste	$200	
Non-Hazardous Waste	$110	
Disposal Costs Per Gallon		
Hazardous Waste	$0.50	
Non-Hazardous Waste	$0.15	
Disposal Costs Per Cubic Yard		
Hazardous Waste	$170	
Non-Hazardous Waste	$100	
Transportation Costs		
Per Drum	$35	
Per Gallon	$0.15	



HEEL TANK AREA
CLOSURE COST ESTIMATE

Table 1 - Estimated Costs Associated with Removal and Waste Disposal Activities

Item No.	Description - Removal & Waste Disposal Activities	Quantity	Unit	Unit Cost	Estimated Cost
1	Waste Removal (Two Technicians 10 hours at $125/hour)	20	hours	$125	$2,500
2	Hazardous Waste Transportation	54,600	gallon	$0.15	$8,190
3	Hazardous Waste Disposal	54,600	gallon	$0.50	$27,300
4	Stormwater Removal (Two Technicians 10 hours at $125/hour)	20	hours	$125	$2,500
5	Stormwater Waste Transportation	19,453	gallon	$0.15	$2,918
6	Stormwater Waste Disposal	19,453	gallon	$0.50	$9,726
	Total Estimated Cost				$53,134

Table 2 - Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities

Item No.	Description - Cleanup of Tanks, Equipment and Concrete	Quantity	Unit	Unit Cost	Estimated Cost
1	Tanks Cleanup (Two Technicians 24 hours at $125/hour)	48	hours	$125	$6,000
2	Washwater Transportation	5,460	gallon	$0.15	$819
3	Washwater Disposal	5,460	gallon	$0.50	$2,730
4	Concrete Cleanup (Two Technicians 10 hours at $125/hour)	20	hours	$125	$2,500
5	Washwater Transportation	304.50	gallon	$0.15	$46
6	Washwater Disposal	304.50	gallon	$0.15	$46
7	Contractor Management and Supervision	24	hours	$250	$6,000
9	Contractor Mobilization / Demobilization	1	Lump Sum	$5,000	$5,000
10	Laboratory Sampling and Analysis	4	Samples	$500	$2,000
	Total Estimated Cost				$25,140

Table 3 - Estimated Costs Associated with Site Cleanup

Item No.	Description - Site Security and Closure Report	Quantity	Unit	Unit Cost	Estimated Cost
1	Site Evaluation and Investigation	1	Lump Sump	$5,000	$5,000
2	Soil Excavation and Removal	24	hours	$250	$6,000
3	Soil Disposal	113.2	cubic yards	$170	$19,248
4	Soil Backfill	113.2	cubic yards	$100	$11,322
5	Contractor Mobilization / Demobilization	1	Lump Sum	$5,000	$5,000
6	Laboratory Sampling and Analysis	24	Samples	$500	$12,000
	Total Estimated Cost				$58,570

Table 4 - Estimated Costs Associated with General Administration of Closure

Item No.	Description - Site Security and Closure Report	Quantity	Unit	Unit Cost	Estimated Cost
1	Agency Notifications and Reporting	1	Lump Sump	$5,000	$5,000
2	Construction Coordination and Procurement	1	Lump Sump	$2,500	$2,500
	Total Estimated Cost				$144,345
3	Engineering and Consulting Services (20%)	20%			$28,869
4	Contingency (10%)	10%			$14,434
	Total Estimated Cost				$187,648

Notes:
1) Estimated costs are based on retaining a third party vendor to conduct final closure activities including contractors, consultants and engineers.
2) The total amount of waste to be managed at the time of closure is based on the maximum permitted capacity.
3) The estimated costs are based on 2023 US dollars in Houston, Texas.

Number of Tanks = 5
Total Waste Storage Capacity = 54,600 gallons
Stormwater is the average of two wettest consecutive months = 10.25 inches (0.854 feet)
Washwater generation rate = 0.1 gallons per square foot.
Rinsate (tank cleaning) generation rate = 10% of total waste storage capacity.
Secondary Containment Area = 3,045 square foot

Total Stormwater to be disposed offsite = 3,045 X 0.854 X 7.48052	19,452.57	gallons
Tank Cleaning Volume = 54,600 X 10%	5,460.00	gallons
Concrete Rinsate Volume = 3,045 X 0.1	304.5	gallons
Soil Excavation, Depth (ft) = 1		
Soil Removal = 1 X 3,045 / 27	113.2	cubic yards
Disposal Costs Per Drum	Cost ($)	
Hazardous Waste	$200	
Non-Hazardous Waste	$110	
Disposal Costs Per Gallon		
Hazardous Waste	$0.50	
Non-Hazardous Waste	$0.15	
Disposal Costs Per Cubic Yard		
Hazardous Waste	$170	
Non-Hazardous Waste	$100	
Transportation Costs		
Per Drum	$35	
Per Gallon	$0.15	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 13, 2020

Ms. Anna Piper
Senior Environmental Specialist
Vopak Logistics Services USA Inc.
2759 Independence Parkway South
Deer Park, Texas 77536

Re: Acceptance of Closure Certification Report
Vopak Logistics Services USA Inc. - Deer Park, Harris County
Hazardous Waste Permit No. 50025
Industrial Solid Waste Registration No. 30567
EPA Identification No. TXD097673149
Tracking No. 24820622; RN100223007/CN601527955

Dear Ms. Piper:

The Industrial & Hazardous Waste (I&HW) Permits Section staff of the Texas Commission on Environmental Quality (TCEQ) has reviewed your November 18, 2020 Closure Certification Report with January 9, 2020 addendum letter and February 5, 2020 addendum email addressing the closure of tank 5-V-1, (Permit Unit No. 56, Notice of Registration (NOR) Unit No. 71). The tank was certified as closed on October 24, 1999 and incorporated as part of the May 16, 2003 Class 3 permit modification. Based on the information provided in the report, the I&HW Permits Section accepts that the closure of Permit Unit No. 56 was completed in accordance with 40 Code of Federal Regulations Section (§)264.110 through §264.115 and RCRA Permit No. 50025.

Vopak's report also demonstrated that Permit Unit No. 56 (NOR number 71) was reused on a new tank, 5-V-2. The new tank was installed in the Deep Injection Well area as part of the 2009 Class 2 permit modification and was also included in the 2011 RCRA permit renewal. Please note that Permit Unit and NOR numbers are not to be reused.

Please be aware that it is the continuing obligation of persons associated with a site to assure that municipal hazardous waste and industrial solid waste are managed in a manner which does not cause the discharge or imminent threat of discharge of waste into or adjacent to waters in the state, a nuisance, or the endangerment of the public health and welfare as required by 30 TAC §335.4. If the construction fails to comply with these requirements, the burden remains upon responsible persons at Ascend Performance Materials to take any necessary and authorized action to correct such conditions.

Should you have any questions, please contact Mr. Cynthia Scoggins of the I&HW Permits Section at (512) 239-3776. If you respond in writing, please include mail code MC 130 in the mailing address.

Sincerely,

Ms. Gulay Aki, P.E., Team Leader
Industrial & Hazardous Waste Permits Section
Waste Permits Division

GA/CS/gg

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 3, 2009

Mr. Tony Bundick, Regional Manager
Vopak Logistics Services USA, Inc.
2759 Battleground Road
Deer Park, Texas 77536

Re: Transmittal of Class 2 Permit Modification
Vopak Logistics Services USA, Inc. – Deer Park, Texas
Industrial Solid Waste Registration No. 30567
Hazardous Waste Permit No. 50025
EPA I.D. No. TXD097673149
ARTS No. 12850453-1; RN100223007/CN601527955

Dear Mr. Bundick:

Enclosed is a signed copy of the above referenced Class 2 permit modification issued pursuant to the Texas Health and Safety Code, Chapter 361, in response to your application dated September 23, 2009.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Questions regarding this modification should be directed to Mr. Chau Vo, P.E. of the Industrial & Hazardous Waste Permits Section at 512/239-5013. If responding by letter, please include mail code MC 130 in the mailing address.

Sincerely,

Lynn Bell for T.A.

Tanveer Anjum, P.E., Manager
Industrial & Hazardous Waste Permits Section
Waste Permits Division

TA/CV/fp

cc: Dr. Kishor Fruitwala, U.S. EPA Region VI (6PD-O) - Dallas

Enclosure

bcc: - Nicole Bealle, Waste Section Manager, TCEQ Region 12 Office - Houston
- Kimberly Sladek, TCEQ Waste Permits Division, MC-130 - Austin
- Keiandre McGruder, TCEQ Waste Permits Division, MC-126 – Austin
- Steven Funderburg, TCEQ I&HW Permits Section, MC-130, Waste Permits Division - Austin
- IHW Permits File – Room 5126

TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

November 5, 2009

Description of Application

Applicant: Vopak Logistics Services USA, Inc.
Industrial Solid Waste Registration No. 30567
Hazardous Waste Permit No. 50025
EPA I.D. No. TXD097673149

Location: Vopak Logistics Services USA, Inc. (Vopak) is located at 2759 Battleground Road approximately 0.8 miles southwest of the San Jacinto Monument in Deer Park on approximately 5.4720 acres in Houston, Harris County, Texas. The site is within the drainage area of the Houston Ship Channel, Segment 1006 of the San Jacinto River Basin (North Latitude 29° 44' 27", West Longitude 95° 05' 38").

This facility is located in an area subject to the Texas Coastal Management Program (CMP). This hazardous waste permit modification application complies with the applicable requirements of 30 Texas Administrative Code Chapters 335 and 305, which are consistent with and satisfy the requirements of the CMP. As a result, the Texas Commission on Environmental Quality (TCEQ) has reviewed this action for consistency with the goals and policies of the CMP in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the permit meets all the applicable CMP goals and policies.

General: Vopak is a commercial waste management facility that stores and treats industrial and hazardous wastes prior to disposal in a injection well that is permitted under the Clean Water Act. Wastes are generated on-site at the Vopak facility and are received from off-site sources on a commercial basis. The wastes managed by the facility include pesticides, spent acids and caustics, waste fuel oil, washwaters, waste oils and solvents, and sludges.

The original permit was issued on October 14, 1992, for a term of ten years. The permit renewal was approved on December 23, 2003.

Request: Vopak has applied to the TCEQ for a Class 2 modification to Permit No. 50025 to close the Railcar Cleaning Area and certain Waste Management Units and incorporate informational changes associated with closure of these units into the permit. The requested changes meet the requirements of 30 TAC 305.69(k) for a Class 2 permit modification. The application request dated September 23, 2009 was received on September 30, 2009.

Authority: A draft permit modification has been prepared in accordance with applicable requirements of 30 TAC Chapters 335 and 305, which have been adopted under the authority of the TEXAS HEALTH AND SAFETY CODE ANN., Chapter 361 (Vernon Supp.), and Section 5.103, Texas Water Code Ann. (Vernon Supp.). The TCEQ and the EPA have entered into a Joint Permitting Agreement (JPA) whereby EPA accepts the applicant's information submitted through the State as a Federal application for purposes of implementing HSWA.

Technical Information

A draft Class 2 permit modification has been prepared to modify Permit No. 50025. The draft permit modification contains the revisions described below:

A. Close Railcar Cleaning Rack;

B. Make informational changes within permit to reflect closure of Railcar Cleaning Rack;

C. Revise Closure and Post-Closure Cost Summaries to reflect closure of the Railcar Cleaning Rack;

D. Update Emergency Coordinator Information and Emergency Contact List; and

E. The following changes to permitted waste management units have been included in the draft permit modification:

Unit ID No.	Permit Unit No.	Description of Change
05-D-1	48	Proposed expansion has been removed
02-D-2	62	Removed; closure certification included
05-T-1A	1	Table V.C has been revised to include only one entry for this unit
05-T-2A	3	Removed; the unit was replaced by 05-T-43
05-T-2B	4	Removed; the unit was replaced by 05-T-44
05-T-9C	17	Proposed expansion to 20,305 gal removed; original unit capacity of 5,600 gal retained (20,305 gal tank never constructed)
05-T-567	30	Removed; closure certification included
05-V-1	56	Removed; closure certification included
05-B-1	57	The proposed expansion was constructed, so the original permit dimensions have been removed
05-B-2	58	The proposed expansion was constructed, so the original permit dimensions have been removed
02-T-3A	59	Removed; closure certification included
02-F01/02-T-7	61	Removed; closure certification included
02-T-1	76	Removed; never constructed
02-T-2	77	Removed; never constructed
02-T-3	78	Removed; never constructed
02-T-4	79	Removed; never constructed
02-T-5	80	Removed; never constructed
02-T-6	81	Removed; never constructed
02-T-8	82	Removed; never constructed
02-F-3A/3B	83	Removed; never constructed
02-F-4A/4B	84	Removed; never constructed

Public Notice

The permittee has provided public notice of the requested modification in accordance with 30 TAC Sections 305.69(c) and 39.403.

Preliminary Decision

General: The executive director has made a preliminary decision that this proposed permit modification, if issued, meets all the statutory and regulatory requirements.

Special: The proposed permit modification does not authorize variances or alternatives to required standards.

Additional Information

A. Technical information:

Chau Vo, P.E., Project Manager
Industrial & Hazardous Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality
Mail Code MC130
P. O. Box 13087
Austin, Texas 78711-3087
512/239-5013

B. Procedural and public hearing information:

Office of Public Interest Counsel
Texas Commission on Environmental Quality
Mail Code MC103
P. O. Box 13087
Austin, Texas 78711-3087
512/239-6363

C. HSWA information:
Paul Sieminski, Section Chief
State/Tribal Oversight Section
U.S. Environmental Protection Agency
Region VI - 6PD-O
1445 Ross Avenue
Dallas, TX 75202-2733

Prepared by:

Chau Vo, P.E., Project Manager
Industrial & Hazardous Waste Permits Section
Waste Permits Division

30567 VOPAK LOGISTICS SERVICES USA DEER PARK

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
014	Container storage area	ACTIVE		1 / NA	050	NA	01 RCRA permitted unit	YES /

Description from Company: 05-D-3 / DUMPSTER STORAGE & BULK HANDLING

Wastes Currently Managed at Unit:
0002310H Spent solids
0009310H Cartridge filters, spent
0011301H HYDROCARBON CONTAMINATED SOLIDS
0015404H Spent Carbon
0019490H Contaminated Sandblasting Grit
0020319H Mercury Contaminated Waste
0022609H ORGANIC SLUDGE
0023519H INORGANIC SLUDGE
0025319H Inorganic Salt
0026003H LAB PACKS
0030319H Computer Equipment
00506071 Waste-water processing solids;Biological treatment sludge
00553081 Crushed drum bin
00634041 Nonhazardous Spent Carbon Canister
00723191 Solid inorganic waste
00735141 Drilling sludge
0077308H Aerosol Cans
00803022 Nonhazardous soil and debris
05023111 Waste generated from demolition of buildings and structures
0509319H Hazardous solid inorganic waste spent filter media
0511219H Other organic liquids/line cleaning activities/spent fuels
06093891 Sandblast grit generated from maintenance activities
06100031 Lab Packs Non Hazardous
06113902 Concrete, cement, construction debris
06123191 Non-hazardous tank/sump bottoms and debris from storage tanks and line cleaning and terminal operations, including spill clean up

Wastes Previously Managed at Unit:
0003403H 0007901H 0008319H 0012203H 0024219H 0029107H 00523191 00544031 00563011 00573101 00700031 00715191 0074801H 0075316H 05033091 0508302H

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
015	Tank (surface)	CLOSED	11/18/2009	1 / NA	059	NA	01 RCRA permitted unit	YES /

Description from Company: 02-T-3A / RAILCAR CLEANING RACK AREA; HEEL TANK T-3A

Wastes Previously Managed at Unit:
0001102H 0003403H 0004219H 0005206H 00061021 00511191 00532191 0505103H

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
016	Tank (surface)	CLOSED	02/27/2020	1 / NA	NA	NA	03 RCRA Permit Exempt<90 Day Storage	YES /

Description from Company: Keeping active for potential future use. Previous use: RAILCAR CLEANING RACK AREA; HEEL TANK T-HB, on-site generated nonhazardous waste only.
Closed per letter from remediation 02/27/2020

System Types: 141 Storage, bulking, and/or transfer off site - no treatment/recovery, fuel blending or disposal at this site.

Wastes Previously Managed at Unit:
0001102H 0003403H 0004219H 0005206H 00061021 0008319H 0010119H 00511191 00523191 00532191 00544031 00563011 0505103H

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
062	Tank	ACTIVE	01/01/1984	1 / NA	042	NA	01 RCRA permitted unit	YES /

Description from Company: Tank 05-C-4

Wastes Previously Managed at Unit:
0001102H 0004219H 0005206H 00061021 0010119H 00511191 00532191 00682191 0511219H

30567 VOPAK LOGISTICS SERVICES USA DEER PARK

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
071	Filter	CLOSED	02/13/2020	1 / NA	056	NA	01 RCRA permitted unit	YES /

Description from Company: KEEPING ACTIVE FOR POTENTIAL FUTURE USE. PREVIOUS USE Filter 05-V-2- former unit (05-V-1) was replaced
System Types: 141 Storage, bulking, and/or transfer off site - no treatment/recovery, fuel blending or disposal at this site.
Wastes Previously Managed at Unit: 0001102H 0005206H 00061021 0010119H 00511191 00532191 00591021

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
078	Filter	ACTIVE	03/01/1980	1 / NA	051	NA	01 RCRA permitted unit	YES /

Description from Company: Filter 05-F-1A
Wastes Currently Managed at Unit: 0023519H INORGANIC SLUDGE
0028102H Contaminated stormwater from the RCRA Part B permitted areas.
0511219H Other organic liquids/line cleaning activities/spent fuels
Wastes Previously Managed at Unit: 0001102H 0005206H 00061021 0010119H 0030319H 00511191 00532191

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
079	Filter	ACTIVE	03/01/1980	1 / NA	052	NA	01 RCRA permitted unit	YES /

Description from Company: Filter 05-F-1B
Wastes Currently Managed at Unit: 0023519H INORGANIC SLUDGE
0028102H Contaminated stormwater from the RCRA Part B permitted areas.
0511219H Other organic liquids/line cleaning activities/spent fuels
Wastes Previously Managed at Unit: 0001102H 0005206H 00061021 0010119H 0030319H 00511191 00532191

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
080	Filter	ACTIVE	12/17/1996	1 / NA	055	NA	01 RCRA permitted unit	YES /

Description from Company: Filter 05-F-4
Wastes Currently Managed at Unit: 0022609H ORGANIC SLUDGE
0023519H INORGANIC SLUDGE
0028102H Contaminated stormwater from the RCRA Part B permitted areas.
0511219H Other organic liquids/line cleaning activities/spent fuels
Wastes Previously Managed at Unit: 0001102H 0005206H 00061021 0010119H 0030319H 00511191 00532191

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
081	Tank	ACTIVE	08/17/2001	NA / H1	063	NA	01 RCRA permitted unit	YES /

Description from Company: Tank 05-T-574
System Types: 141 Storage, bulking, and/or transfer off site - no treatment/recovery, fuel blending or disposal at this site.
Wastes Currently Managed at Unit: 0028102H Contaminated stormwater from the RCRA Part B permitted areas.
00506071 Waste-water processing solids;Biological treatment sludge
00641021 RFO Decant Waters
05072051 Off Spec product from loading / unloading operations or tank and line cleaning
Wastes Previously Managed at Unit: 0001102H 0002310H 0003403H 0004219H 0005206H 00061021 0007901H 0008319H 0009310H 0010119H 0011301H 0012203H 0014105H
0015404H 0016101H 0017113H 00183901 0019490H 0020319H 0021110H 0022609H 0023519H 0024219H 0025319H 0026003H 0027102H
0029107H 0030319H 00511191 00523191 00532191 00544031 00553081 00563011 00573101 00583191 00591021 0060102H 0061207H
00622011 00652061 00661101 00671011 00682191 00694011 00700031 00715191 00723191 00735141 0074801H 0075316H 0077308H
00803022 05023111 05033091 0504209H

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of 05-F-04 Area		Cost
05-F-04		
Estimated Costs Associated with Removal and Waste Disposal Activities		$11,093
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$24,500
Estimated Costs Associated with Site Cleanup		$28,631
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$71,724
Engineering and Consulting Services (20%)		$14,345
Contingency (10% minimum)		$7,172
Total Closure Cost	Year: 2023	$93,241

Task: Closure of 500 Tank Series Storage Area		Cost
05-T-6, 05-T-7, 05-T-563, 05-T-567, 05-T-583, 05-T-589, 05-T-590, 05-T-591		
Estimated Costs Associated with Removal and Waste Disposal Activities		$1,608,254
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$181,254
Estimated Costs Associated with Site Cleanup		$462,160
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$2,259,167
Engineering and Consulting Services (20%)		$451,833
Contingency (10% minimum)		$225,917
Total Closure Cost	Year: 2023	$2,936,918

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of Deepwell Injection Area		Cost
05-T-1B, 05-T-43, 05-T-44, 05-T-3, 05-T-4B, 05-T-5, 05-T-8, 05-T-9A, 05-T-9B, 05-C-1, 05-C-2, 05-C-3, 05-C-4, 05-F-1A, 05-F-1B, 05-F-2, 05-F-3, 05-V-2, 05-T-48 and 05-T-49. NOT BUILT YET TANKS: 05-T-23, 05-T-24, and 05-T-25.		
Estimated Costs Associated with Removal and Waste Disposal Activities		$407,529
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$72,131
Estimated Costs Associated with Site Cleanup		$104,970
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$592,131
Engineering and Consulting Services (20%)		$118,426
Contingency (10% minimum)		$59,213
Total Closure Cost	Year: 2023	$769,770

Task: Closure of Emulsified Oil Treatment System (EOTS): Existing		Cost
05-T-4D, 04-T-4E, 05-T-21 and 05-T-22.		
Estimated Costs Associated with Removal and Waste Disposal Activities		$50,478
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$26,297
Estimated Costs Associated with Site Cleanup		$60,460
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$144,736
Engineering and Consulting Services (20%)		$28,947
Contingency (10% minimum)		$14,474
Total Closure Cost	Year: 2023	$188,156

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of Emulsified Oil Treatment System (EOTS): Not Yet Built (Used in Total Closure Cost Estimate)		Cost
05-T-21, and 05-T-22. NOT BUILT YET TANKS: 05-T-39, 05-T-40, 05-T-41 and 05-T-42.		
Estimated Costs Associated with Removal and Waste Disposal Activities		$97,259
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$30,975
Estimated Costs Associated with Site Cleanup		$60,460
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$196,194
Engineering and Consulting Services (20%)		$39,239
Contingency (10% minimum)		$19,619
Total Closure Cost	Year: 2023	$255,052

Task: Closure of Heel Tank Area		Cost
05-T-51, 05-T-52, 05-T-53, 05-T-54 and 05-T-55		
Estimated Costs Associated with Removal and Waste Disposal Activities		$54,044
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$25,231
Estimated Costs Associated with Site Cleanup		$58,570
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$145, 346
Engineering and Consulting Services (20%)		$29,069
Contingency (10% minimum)		$14,535
Total Closure Cost	Year: 2023	187,648

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of Truck Unloading Area		Cost
05-B-1 and 05-B-2		
Estimated Costs Associated with Removal and Waste Disposal Activities		$30,123
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$19,109
Estimated Costs Associated with Site Cleanup		$29,163
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$85,895
Engineering and Consulting Services (20%)		$17,179
Contingency (10% minimum)		$8,590
Total Closure Cost	Year: 2023	$111,664

Task: Closure of Wastewater Emulsified Oil Treatment System (WW EOTS)		Cost
05-T-574 and 05-T-575.		
Estimated Costs Associated with Removal and Waste Disposal Activities		$35,042
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$24,166
Estimated Costs Associated with Site Cleanup		$36,780
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$103,488
Engineering and Consulting Services (20%)		$20,698
Contingency (10% minimum)		$10,349
Total Closure Cost	Year: 2023	$134,535

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of CSA 05-D-1: Existing		Cost
05-D-1		
Estimated Costs Associated with Removal and Waste Disposal Activities		$66,582
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$14,079
Estimated Costs Associated with Site Cleanup		$54,410
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$142,571
Engineering and Consulting Services (20%)		$28,514
Contingency (10% minimum)		$14,257
Total Closure Cost	Year: 2023	$185,342

Task: Closure of CSA 05-D-1: Not Yet Built (Used in Total Closure Cost Estimate)		Cost
05-D-1		
Estimated Costs Associated with Removal and Waste Disposal Activities		$112,661
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$14,171
Estimated Costs Associated with Site Cleanup		$56,460
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$190,792
Engineering and Consulting Services (20%)		$38,158
Contingency (10% minimum)		$19,079
Total Closure Cost	Year: 2023	$248,030

Table VII.B. - Unit Closure Cost Estimate

Task: Closure of CSA 05-D-3		Cost
05-D-3		
Estimated Costs Associated with Removal and Waste Disposal Activities		$51,411
Estimated Costs Associated with the Tanks, Ancillary Equipment, and Secondary Containment Cleanup Activities		$14,109
Estimated Costs Associated with Site Cleanup		$64,390
Estimated Costs Associated with General Administration of Closure		$7,500
Subtotal		$137,410
Engineering and Consulting Services (20%)		$27,482
Contingency (10% minimum)		$13,741
Total Closure Cost	Year: 2023	$178,633

	Cost
Total Closure Cost Year: 2023	

Table VII.D. - Unit Post-Closure Cost Estimate

Task: Emulsified Waste Oil Treatment Facility	Cost
Emulsified Waste Oil Treatment Facility	
Tank/Equipment Demo	$7,990
Concrete Demo	$5,540
Clay Cover	$2,200
Drainage Sand	$24
Filtered Geotextile	$1,650
Top Soil	$747
Vegetative Cover	$5
Administrative and PE Certification	$1,000
Subtotal	$19,160
Contingency (10% minimum)	$1,916
Year(s) of Post-Closure	1
Total Unit Closure Cost (Annual Cost X Years of Post-Closure) Year 1991	$21,076

Note: Contingent Closure Cost Estimate Not Post Closure Cost Estimate.

The estimates listed above were derived from the following sources: Historical Application

Table VII.D. - Unit Post-Closure Cost Estimate

Task: Deepwell Process Tank Area	Cost
Deepwell Process Tank Area	
Tank/Equipment Demo	$26,820
Concrete Demo	$23,205
Clay Cover	$8,975
Drainage Sand	$100
Filtered Geotextile	$6,733
Top Soil	$3,067
Vegetative Cover	$32
Administrative and PE Certification	$1,000
Subtotal	$69,932
Contingency (10% minimum)	$6,993
Year(s) of Post-Closure	1
Total Unit Closure Cost (Annual Cost X Years of Post-Closure) Year 1991	$76,925

Note: Contingent Closure Cost Estimate Not Post Closure Cost Estimate.

The estimates listed above were derived from the following sources: Historical Application

Table VII.D. - Unit Post-Closure Cost Estimate

Task: Groundwater Monitoring	Cost
Groundwater Monitoring	
Installation	$42,000
Monitoring and Maintenance	$4,200
Labor	$420
Administration	$480
Mowing, Repairs, Etc./Yr.	$168,000
Subtotal	$215,100
Contingency (10% minimum)	$21,510
Year(s) of Post-Closure	30
Total Unit Closure Cost (Annual Cost X Years of Post-Closure) Year 1991	$236,610

Note: Contingent Closure Cost Estimate Not Post Closure Cost Estimate.

The estimates listed above were derived from the following sources: Historical Application

Total Permitted Facility Post-Closure Cost *(all unit costs combined)*	**$334,611 (1991)**
Total Permitted Facility Post-Closure Cost *(all unit costs combined)*	**$551,258 (2013)**
Total Permitted Facility Post-Closure Cost *(all unit costs combined)*	**$725,751 (2024)**

Table VII.E.1. - Permitted Unit Closure Cost Summary

Existing Unit Closure Cost Estimate	
Unit	Cost
05-F-04 Area	$93,241
500 Tank Series Storage Area	$2,936,918
Deepwell Injection Area	$769,770
Emulsified Oil Treatment System (EOTS)	$188,156
Heal Tank Area	$187,648
Truck Unloading Area	$111,664
Wastewater Emulsified Oil Treatment System (WW EOTS)	$134,535
CSA 05-D-1	$185,342
CSA 05-D-3	$178,633
Total Existing Unit Closure Cost Estimate[1] Year 2023	$4,785,907

Proposed Unit Closure Cost Estimate	
Unit	Cost
Emulsified Oil Treatment System (EOTS)	$255,052
CSA 05-D-1	$248,030
Total Proposed Unit Closure Cost Estimate Year 2023	$4,915,491
Total Proposed Unit Closure Cost Estimate Year 2024	**$5,033,463**

Note: Total Closure Cost Estimate is based on Not Yet Built for EOTS and CSA 05-D-1.

1 As units are added or deleted from these tables through future permit amendments or modifications, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

Table VII.E.2. - Permitted Unit Post-Closure Cost Summary

Existing Unit Closure Cost Estimate	
Unit	Cost
Emulsified Waste Oil Treatment Facility (2012)	$34,209
Deepwell Process Tank Area (2012)	$124,858
Groundwater Monitoring (2012)	$384,044
Total Permitted Unit Post-Closure Cost 2012	$543,111
Based on Inflation Factor 2013	$551,258
Based on Inflation Factors between 2013 and 2024	$725,751
Total Existing Unit Post-Closure Cost Estimate(1) 2024	**$725,751**

Proposed Unit Post-Closure Cost Estimate	
Unit	Cost
Total Proposed Unit Post-Closure Cost Estimate	

1. As units are added or deleted from these tables through future permit amendments or modifications, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

Signature Page

I, Gustavo Nery, Site Director,

(Operator) *(Title)*

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:__________ Date: May 21, 2025

- -

To be completed by the Operator if the application is signed by an Authorized Representative for the Operator

I,____________________, hereby designate ____________________

[Print or Type Name] *[Print or Type Name]*

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

____

Printed or Typed Name of Operator or Principal Executive Officer

____

Signature

- -

SUBSCRIBED AND SWORN to before me by the said Gustavo Nery

On this 21 day of May, 2025

My commission expires on the 4th day of November, 2028

Notary Public in and for Harris County, Texas

***[Note:** Application Must Bear Signature & Seal of Notary Public]*

DEVONNE FRANCIS
MY COMMISSION EXPIRES
11/4/2028
NOTARY ID: 11869677

NOTARY PUBLIC STATE OF TEXAS

Devonne Francis