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HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

PERMIT RENEWAL APPLICATION

DECEMBER 2025

REVISED: JANUARY 2026

Coterie ENVIRONMENTAL

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PART A

Texas Commission on Environmental Quality
Instructions and Procedural Information
for Filing a Permit Application for a
Hazardous Waste Storage, Processing, or Disposal Facility

Part A

[**Form Availability**: This form, as well as other Industrial and Hazardous Waste documents, is available on the Internet World Wide Web, Industrial and Hazardous Waste home page at address https://www.tceq.texas.gov/permitting/waste_permits/ihw_permits]

General Instructions

1. A person (individual, corporation or other legal entity) who stores, processes or disposes of hazardous waste (except where such storage and/or processing is excluded from permit requirements in accordance with 30 Texas Administrative Code (TAC) Section 335.2) must obtain a permit pursuant to the Texas Health and Safety Code. In applying to the Texas Commission on Environmental Quality, hereafter referred to as the Commission, the applicant shall follow the procedures outlined below, on the application and in the Rules of the Commission.

2. The application (one original plus three (3) complete copies[1]) should be mailed to:

   Texas Commission on Environmental Quality
   Attention: Waste Permits Division, MC126
   P. O. Box 13087
   Austin, Texas 78711-3087

3. Signature on Application [30 TAC 305.44]. The application shall be signed by the owner and operator or by a duly authorized agent, employee, officer, or representative of the owner or operator and shall be verified before a notary public. When another person signs on behalf of the owner and operator, this person's title or relationship to the owner or operator should be shown. In all cases, the person signing the form should be authorized to do so by the owner or operator (the Commission may require a person signing on behalf of an owner or operator to provide proof of authorization). An application submitted for a corporation must be signed by (or the signatory must be authorized by) a responsible corporate officer such as a president, secretary, treasurer, vice-president, or designated manager; or for a partnership or sole proprietorship, by a general partner or the proprietor, respectively. In the case of a municipal, state, federal, or other public facility, the application shall be signed by either a principal executive

[1] The third copy may optionally consist of paper copies of all plans and maps and a computer diskette of the remaining document. The document should be formatted in Word processing software up to and including version 6.1 or a 100% compatible format. Files may be compressed using PKZIP Ver. 2 or a 100% compatible program.

officer or ranking elected official.

4. An application will not be processed until all information required to properly evaluate the application has been obtained. When an application is severely lacking in detail and/or the applicant fails to submit additionally requested information in a timely manner, the application will not be considered to be "filed in accordance with the rules and regulations of the Commission."

   Please submit any application revisions with a revised date and page numbers at the bottom of the page(s).

5. Fees and Costs

   a. The fee for filing an application is discussed in Section XII of Part B, form number TCEQ-0376.

   b. The applicant for a permit is required to bear the cost of publication of notice of the application in a newspaper as prescribed by 30 TAC Section 39.405(f).

6. A person may not commence operation of a hazardous waste management facility until the Commission has issued a permit to authorize the storage, processing, or disposal of hazardous waste, except with the approval of the Commission.

7. Designation of Material as Confidential

   The designation of material as confidential is frequently carried to excess. The Commission has a responsibility to provide a copy of each application to other review agencies and to interested persons upon request and to safeguard confidential material from becoming public knowledge. Thus, the Commission requests that the applicant (1) be prudent in the designation of material as confidential and (2) submit such material only when it might be essential to the staff in their development of a recommendation.

   The Commission suggests that the applicant NOT submit confidential information as part of the permit application. However, if this cannot be avoided, the confidential information should be described in non-confidential terms throughout the application, and submitted as a document or binder, and conspicuously marked "CONFIDENTIAL."

   Reasons of confidentiality include the concept of trade secrecy and other related legal concepts which give a business the right to preserve confidentiality of business information to obtain or retain advantages from its right in the information. This includes authorizations under 18 U.S.C. 1905 and special rules cited in 40 CFR Chapter I, Part 2, Subpart B.

   Section 361.037 of the Texas Health and Safety Code does not allow an applicant for an industrial and hazardous waste permit to claim as confidential any record pertaining to the characteristics of the industrial solid waste.

   The applicant may elect to withdraw any confidential material submitted with the application. However, the permit cannot be issued, amended, or modified if the application is incomplete.

Part II

Procedural Information

After the submittal of Parts A and B of the application, the TCEQ will provide public notice of receipt of the application. The Executive Director's staff will review the application for completeness of information submitted. During the review, the applicant may be contacted for clarification or additional information. When all pertinent information is present, the application or a summary of its contents will be forwarded for review by other state agencies and local governmental entities interested in water quality control and solid waste management. After technical evaluation, opportunity for public hearing will be afforded.

Note that for facilities which had "commenced on-site storage, processing, or disposal of hazardous waste" [see 30 TAC Section 335.43(b)] on or before the date such waste is identified or listed as hazardous by EPA, the Texas Health and Safety Code provides in Section 361.082(f) that these facilities may continue to manage hazardous waste until such time as the Commission approves or denies the application, provided that the applicant has filed the permit application in accordance with the rules and regulations of the Commission.

The Commission may act upon an application for a permit, permit amendment, permit modification, or renewal of a permit without the necessity of holding a public hearing:

1. (a) When notice of the application has been mailed to persons possibly affected by the proposed permit; and

   (b) When notice has been published at least once in a newspaper regularly published or circulated within each county where the proposed facility is located; and

   (c) Within forty-five (45) days following publication of the Commission's notice, a Commissioner, the Executive Director or an affected person has not requested a public hearing; or

2. For a Class 1 or a Class 2 permit modification or a minor amendment to a permit. The Commission may, in certain cases, hold a public hearing for a Class 2 permit modification or a minor amendment.

A public hearing may be scheduled on an application for a RCRA hazardous waste permit when requested by a Commissioner, the Executive Director, or an affected person within forty-five (45) days following the newspaper publication.

Requirements of Giving Notice of the Application:

1. By the Applicant: Every applicant for a permit, permit amendment, permit modification, or permit renewal shall publish notice (see note below) of the application at least once in a newspaper regularly published or circulated within each county where the proposed facility is located. Where a public hearing has been requested, notice will be mailed to the applicant in ample time for publication, which shall be not less than thirty (30) days prior to the date set for the hearing. Except in the case of a notice of a permit modification request, the Commission will mail the appropriate notice and instructions for publication to the applicant.

   NOTE: Additional publication and direct mail notice to affected persons will result if a public hearing is requested following newspaper publication of the notice of application. The cost of providing this additionally required publication and service of notice to affected persons will be assumed by the applicant.

2. By the Texas Commission on Environmental Quality: The Commission will mail notice of

the application (except for permit modifications) to affected persons and certain governmental entities. The notice will be mailed at the same time instructions for newspaper publications are mailed to the applicant.

3. Bilingual Notice Instructions:

   For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, requires a bilingual education program for an entire school district should the requisite alternative language speaking student population exist. However, there may not be any bilingual-speaking students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location to satisfy the school's obligation to provide such a program.

   If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language.

Bilingual Notice Application Form:

Bilingual notice confirmation for this application:

1. Is the school district of the elementary or middle school nearest to the facility required by the Texas Education Code to have a bilingual program?

   ☒YES ☐ NO

   (**If NO**, alternative language notice publication not required)

2. **If YES** to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility?

   ☒ YES ☐ NO

   (**If YES** to questions 1 and 2, alternative language publication is required; **If NO** to question 2, then consider the next question)

3. **If YES** to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location?

   ☐ YES ☒ NO

   (**If Yes** to questions 1 and 3, alternative language publication is required; **If NO** to question 3, then consider the next question)

4. **If YES** to question 1, would either the elementary school or the middle school nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC 89.1205(g)?

   ☐ YES ☒ NO

(**If Yes** to questions 1 and 4, alternative language publication is required; **If NO** to question 4, alternative language notice publication not required)

If a bilingual education program(s) is provided by either the elementary school or the middle school nearest to the facility, which language(s) is required by the bilingual program? **Spanish**

Consideration of the Permit Application by the Commission:

The applicant will be notified by the Commission when the application is set for final consideration. If the Commission issues the permit, the applicant will be mailed a copy of the permit by the TCEQ Office of the Chief Clerk within one (1) month following Commission approval. (NOTE: Only one copy is mailed to the applicant and that copy will be sent to the official mailing address of the applicant as shown on the permit application form.)

Table of Contents

Texas Commission on Environmental Quality
Permit Application for a Hazardous Waste Storage/Processing/Disposal Facility
Part A - Facility Background Information

I. General Information

A. Facility Name: **Huntsman Petrochemical Conroe Plant**
(Individual, Corporation, or Other Legal Entity Name)

TCEQ Solid Waste Registration No: **30094** EPA I.D. No.: **TXD008076853**

Street Address (If Available): **5451 Jefferson Chemical Road**

City: **Conroe**, State: **TX** Zip Code: **77301**

County: **Montgomery**

Telephone Number: **936-756-3381** Charter Number: **801189942**

If the application is submitted on behalf of a corporation, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas.

B. Facility Contact

1. List those persons or firms who will act as primary contact for the applicant during the processing of the permit application. Also indicate the capacity in which each person may represent the applicant (engineering, legal, etc.). The person listed first will be the primary recipient of correspondence regarding this application. Include the complete mailing addresses and phone numbers.

Contact – General:
Holly Currie
Environmental Team Lead
5451 Jefferson Chemical Road
Conroe, TX 77301
Phone: 936-760-6270
Email: [redacted]

Contact – Application Information:
S. Heather McHale
Principal
Coterie Environmental LLC
840 First Avenue, Suite 400
King of Prussia, PA 19406
Phone: 610-406-2214
Email: [redacted]

2. If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.

Not applicable

C. Operator[1]: Identify the entity who will conduct facility operations.

Operator Name: **Huntsman Petrochemical LLC**

[1] The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on this application [Section 361.087 Texas Health and Safety Code].

Address: **5451 Jefferson Chemical Road**

City: **Conroe**, State: **TX** Zip Code: **77301**

Telephone Number: **936-756-3381** Charter Number: **65542-06**

D. Owner

1. Indicate the ownership status of the facility:

   a. Private ✓

      (1) ✓ Corporation
      (2) _____ Partnership
      (3) _____ Proprietorship
      (4) _____ Non-profit organization

   b. Public _____

      (1) _____ Federal
      (2) _____ Military
      (3) _____ State
      (4) _____ Regional
      (5) _____ County
      (6) _____ Municipal
      (7) _____ Other (specify)

2. Does the operator own the facility units and facility property?

   ☒ Yes ☐ No

   If you checked "no",

   a. Submit as "Attachment A" a copy of the lease for use of or the option to buy said facility units and/or facility property, as appropriate; and

   b. Identify the facility units' owner(s) and/or facility property owner(s). Please note that the owner(s) is/are required to sign the application on page 5.

Owner Name: _____

Address: _____

City: _____, State: _____ Zip Code: _____

Telephone Number: _____

Owner Name: _____

Address: _____

City: _____, State: _____ Zip Code: _____

Telephone Number: _____

E. Type of Application Submittal:

Initial _____ or Revision __✓ **(Renewal)**___

F. Registration and Permit Information

Indicate (by listing the permit number(s) in the right-hand column below) all existing or pending State and/or Federal permits or construction approvals which pertain to pollution control or industrial solid waste management activities conducted by your plant or at your location. Complete each blank by entering the *permit number*, or the *date of application*, or *"none"*.

Relevant Program and/or Law	Permit No.	Agency*
1. Texas Solid Waste Disposal Act	**30094**	**TCEQ**
2. Wastewater disposal under the Texas Water Code	**None**	
3. Underground injection under the Texas Water Code	**None**	
4. Texas Clean Air Act	**20123, 42682 4788, O-01384**	**TCEQ**
5. Texas Uranium Surface Mining & Reclamation Act	**None**	
6. Texas Surface Coal Mining & Reclamation Act	**None**	
7. Hazardous Waste Management program under the Resource Conservation and Recovery Act	**50227**	**TCEQ**
8. UIC program under the Safe Drinking Water Act	**None**	
9. TPDES program under the Clean Water Act	**WQ0000584000**	**TCEQ**
(stormwater)	**TXR05FC17**	**TCEQ**
10. PSD program under the Clean Air Act	**None**	
11. Nonattainment program under the Clean Air Act	**None**	
12. National Emission Standards for Hazardous Pollutants (NESHAP) Pre-construction approval under the Clean Air Act	**None**	
13. Ocean dumping permits under the Marine Protection Research and Sanctuaries Act	**None**	
14. Dredge or fill permits under section 404 of the Clean Water Act	**None**	
15. Other relevant environmental permits	**None**	

*Use the following acronyms for each agency as shown below:

TCEQ = Texas Commission on Environmental Quality
TRC = Texas Railroad Commission
TDH = Texas Department of Health
TDA = Texas Department of Agriculture
EPA = U.S. Environmental Protection Agency
CORPS = U.S. Army Corps of Engineers

G. Give a brief description of the nature of your business.

Huntsman is engaged in the manufacturing of organic chemicals that are used as intermediates in the chemical manufacturing industry.

H. TCEQ Core Data Form

The TCEQ requires that a Core Data Form (Form 10400) be submitted on all incoming applications. For more information regarding the Core Data Form, call (512) 239-1575 or go to the TCEQ website at http://www.tceq.texas.gov/permitting/central_registry/guidance.html.

The Core Data Form is provided as Attachment F.

Signature Page

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

Operator Signature: _____ Date: 12/11/25

Name and Official Title (type or print): **José Ignacio Garcia De Albizu, Manufacturing Director Americas**

Operator Signature: _____ Date: _____

Name and Official Title (type or print): _____

Operator Signature: _____ Date: _____

Name and Official Title (type or print): _____

Owner Signature: _____ Date: _____

Name and Official Title (type or print): _____

To be completed by the operator if the application is signed by an authorized representative for the operator

I, _____ hereby designate _____
(operator) (authorized representative)
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 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

(Note: Application Must Bear Signature & Seal of Notary Public)

Subscribed and sworn to before me by the said Jose Garcia on this

11th day of December, 2025.

My commission expires of the 18th day of September, 2029

KAREN D MARSHALL
Notary Public, State of Texas
Comm. Expires 09-18-2029
Notary ID 10052131

Karen D. Marshall
Notary Public in and for Montgomery County, Texas

Proof of Signature Authorization

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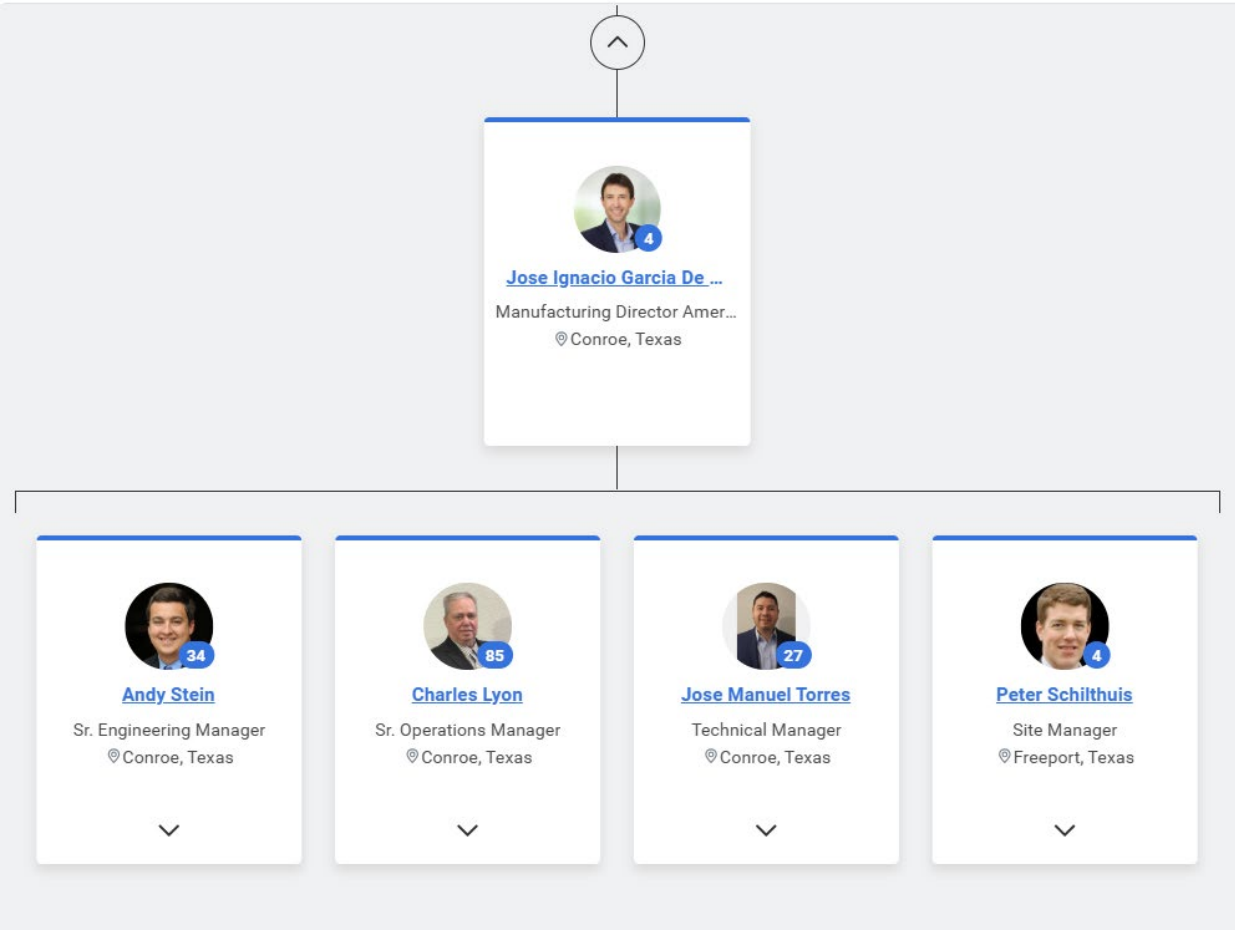
Org Chart (People View)



II. Facility Background Information

A. Location of Facility for which the application is submitted

1. Give a description of the location of the facility site with respect to known or easily identifiable landmarks.

The Huntsman Petrochemical Conroe Plant is located on Jefferson Chemical Road approximately five miles southeast of the city of Conroe in Montgomery County, Texas. The plant is approximately 0.5 miles from the city of Cut and Shoot, Texas.

2. Detail the access routes from the nearest U.S. or State Highway to the facility.

From Conroe, take Highway 105 east to FM 1485. Travel east of FM 1485 for about 0.5 miles to Jefferson Chemical Road. Travel south on Jefferson Chemical Road about 0.25 miles to the plant. Access can be made through facility gates.

3. Enter the geographical coordinates of the facility:

Latitude: **30 N** deg **18** min **50** sec

Longitude: **95 W** deg **23** min **09** sec

4. Is the facility located on Indian lands?

☐ Yes ☒ No

B. Legal Description of Facility

Submit as "Attachment B" a legal description(s) of the tract or tracts of land upon which the waste management operations referred to in this permit application occur or will occur. Although a legal description is required, a metes and bounds description is not necessary for urban sites with appropriate "lot" description(s). A survey plat or facility plan drawing which shows the specific points referenced in the survey should also be included in Attachment B.

See Attachment B for the legal description of facility.

C. SIC Codes

List, in descending order of significance, the four digit standard industrial classification (SIC) codes which best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words. These classifications may differ from the SIC codes describing the operation generating the hazardous wastes.

4-digit SIC Code	Description
2869	Industrial organic chemicals
2899	Chemicals and chemical preparations

SIC code numbers are descriptions which may be found in the Standard Industrial Classification Manual prepared by the Executive Officer of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual.

III. Wastes and Waste Management

A. Waste Generation and Management Activities

Is any hazardous waste [see Title 40, Code of Federal Regulations (CFR), Part 261] presently or proposed to be generated or received at your facility?

☒ Yes ☐ No

If no, skip to question Number 2 below.

If yes, answer the following question.

1. Are you presently registered with TCEQ as a solid waste generator?

   ☒ Yes ☐ No ☐ Pending

   If no, contact the Industrial and Hazardous Waste Division of TCEQ in Austin, Texas to obtain registration information. Also, continue with the application form (go to Number 2 below).

   If yes, go to Section I of your TCEQ Notice of Registration, determine which of your wastes are hazardous, and list these wastes (and mixtures) in Table III-1 (see Number 2 below).

2. Complete Table III-1, Hazardous Wastes and Management Activities, below, listing all hazardous wastes, all mixtures containing any hazardous wastes, and hazardous debris which were, are presently, or are proposed to be handled at your facility in interim status or permitted units. See 40 CFR 261 and 268.2, attaching additional copies as necessary.

   Guidelines for the Classification & Coding of Industrial Wastes and Hazardous Wastes, TCEQ publication RG-22, contains guidance on how to properly classify and code industrial waste and hazardous waste in accordance with 30 TAC 335.501-335.515 (Subchapter R).

   If you are not registered with TCEQ, enter "NA" for TCEQ Waste Code Number.

   For the EPA Hazardous Waste Numbers, see 40 CFR 261.20-33. For annual quantity, provide the amount in units of pounds (as generated and/or received) for each waste and/or waste mixture.

B. Waste Management Units Summary

1. For each waste and waste mixture listed in Table III-1 that is stored, processed, and/or disposed on-site (except where such storage and/or processing is excluded from permit requirements in accordance with Texas Administrative Code (TAC) Section 335), complete Table III-2, Hazardous Waste Management Unit Checklist, and enter the name of each hazardous waste management unit (Note: Please make copies of Table III-2 if necessary).

Give the design capacity of each hazardous waste management unit in any of the units of measure shown. In the case of inactive or closed units for which design details are unavailable, an estimate of the design capacity is sufficient.

Please provide a description for each waste management unit described in your own words on the line provided for "Waste Management Unit."

2. Has the applicant at any time conducted the on-site disposal of industrial solid waste now identified or listed as hazardous waste?

   ☐ Yes ☒ No

   If yes, complete Table III-2 indicating the hazardous waste management units which were once utilized at your plant site but are no longer in service (i.e., inactive or closed facility units).

   If no, and if no hazardous waste is presently or proposed to be stored [for longer than 90 days (see 30 TAC Section 335.53)], processed, or disposed of at your facility, then you need not file this permit application. Otherwise proceed with the application form.

3. Provide an estimate of the total weight (lbs) of hazardous waste material that has been disposed of and/or stored within your site boundaries and not removed to another site.

   Zero pounds of hazardous waste are estimated to have been disposed of and/or presently stored onsite in RCRA-permitted units. According to TCEQ guidance, this question does not pertain to waste stored prior to onsite treatment.

C. Location of Waste Management Units

1. Submit as "Attachment C" a drawn-to-scale topographic map (or other map if a topographic map is unavailable) extending one mile beyond the facility boundaries, depicting the following:

   See Attachment C.

   a. The approximate boundaries of the facility (described in Section II.B) and within these boundaries, the location and boundaries of the areas occupied by each active, inactive, and proposed hazardous waste management unit (see Table III-2). Each depicted area should be labeled to identify the unit(s), unit status (i.e., active, inactive, or proposed), and areal size in acres.

   b. The overall facility and all surface intake and discharge structures;

   c. All on-site injection wells where liquids are injected underground;

   d. All known monitor wells and boreholes within the property boundaries of the facility; and

   e. All wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within the map area and the purpose for which each water well is used (e.g., domestic, livestock, agricultural, industrial, etc.).

2. Submit as "Attachment D" photographs which clearly delineate all hazardous waste management storage, processing, and disposal units, as well as sites of future storage, processing and disposal units.

   See Attachment D.

D. Flow Diagram/Description

Show as "Attachment E" process flow diagrams and step-by-step word descriptions of the process flow, depicting the handling, collection, storage, processing, and/or disposal of each of the hazardous wastes previously listed in this application.

See Attachment E for the required information.

The flow diagrams or descriptions should include the following information:

1. Originating point of each waste and waste classification code;

2. Means of conveyance utilized in every step of the process flow;

3. Name and function of each facility component through which the waste passes;

4. The ultimate disposition of all wastes (if off-site, specify "off-site") and waste residues.

IV. Index Of Attachments

List and index below all attachments to this application and indicate if included or not included:

Item	Attachments	Attachment	Included	Not Included
I.D.2.a	**Lease/Option to buy**	**A**		✓
II.B	**Site legal description**	**B**	✓	
III.C.1	**Facility boundaries and adjacent waters map**	**C**	✓	
III.C.2	**Photographs**	**D**	✓	
III.D	**Process flow diagram/description**	**E**	✓	
I.H	**Core Data Form**	**F**	✓	

Table III-1 – Hazardous Wastes and Management Activities

Verbal Description of Waste	TCEQ Waste for Code and Classification Code	EPA Hazardous Waste Number	Storage[1] of Wastes Received from Off-Site	Processing[2] of Wastes Received from Off-Site	Disposal of Wastes Received from Off-Site	Storage[1] of Wastes Generated On-Site	Processing[2] of Wastes Generated On-Site	Disposal of Wastes Generated On-Site	Annual Quantity Generated and/or Received
Spent methanol waste	**0001203H**	**D001, D002, D018, F003, U154**	**No**	**No**	**No**	**Yes**	**Yes**	**No**	**6,000,000 lb**
Spent isopropanol waste	**0013203H**	**D001**	**No**	**No**	**No**	**Yes**	**Yes**	**No**	**600,000 lb**
Amine mix waste	**0123207H**	**D001, D002, D018**	**No**	**No**	**No**	**Yes**	**Yes**	**No**	**250,000 lb**
Morpholine bottoms lights waste	**0165203H**	**D001**	**No**	**No**	**No**	**Yes**	**Yes**	**No**	**200,000 lb**

[1] "Storage" means the holding of solid waste for a temporary period, at the end of which the waste is processed, disposed of, or stored elsewhere.

[2] "Processing" means the extraction of materials, transfer, volume reduction, conversion to energy, or other separation and preparation of solid waste for reuse or disposal, including the treatment or neutralization of hazardous waste, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material from the waste or so as to render such waste non-hazardous or less hazardous; safer for transport, store or dispose of; or amenable for recovery, amenable for storage, or reduced in volume. The "transfer" of solid waste for reuse or disposal as used above, does not include the actions of a transporter in conveying or transporting solid waste by truck, ship, pipeline, or other means. Unless the Executive Director determines that regulation of such activity is necessary to protect human health or the environment, the definition of "processing" does not include activities relating to those materials exempted by the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., as amended.

Table III-2 – Hazardous Waste Management Unit Checklist

Waste Management Unit	TCEQ N.O.R. Unit #	Status[1]	Design Capacity[2]	Number of Years Utilized	Date in Service
T-F-9 Tank	**010**	**Active**	**30,000 gal**	**37**	**1988**
R-F-70 Incinerator	**023**	**Active**	**38.9 MMBtu/hr**	**21**	**2004**
R-F-6 Incinerator	**003**	**Closed**	**120 gpm**	**31**	**1969**

[1] Indicate only one of the following: Active, Inactive, Closed, or Proposed
[2] Cubic yards, gallons, pounds, gallons/minute, pounds/hour, BTUs/hour, etc.

Attachment B
Site Legal Description

SITE LEGAL DESCRIPTION

PROPERTY 1
Beginning at an X,Y coordinate recognized as X= 3,856,625.10, Y= 10,113,389.97 Feet;
Thence S84° 24' 38.94"E, a distance of 4269.48 feet;
Thence S03° 24' 56.68"E, a distance of 3056.00 feet;
Thence N83° 24' 12.34"E, a distance of 17.58 feet;
Thence along a curve with a chord bearing of N50° 55' 52.03"E, a radius of 241.28 feet, an arc length of 155.14 feet;
Thence along a curve with a chord bearing of N20° 41' 28.44"W, a radius of 19.66 feet, an arc length of 29.40 feet;
Thence along a curve with a chord bearing of S01° 38' 25.76"E, a radius of 18.23 feet, an arc length of 30.74 feet;
Thence along a curve with a chord bearing of S76° 38' 48.96"W, a radius of 139.52 feet, an arc length of 33.78 feet;
Thence along a curve with a chord bearing of N89° 26' 44.22"W, a radius of 139.52 feet, an arc length of 33.78 feet;
Thence along a curve with a chord bearing of N43° 36' 42.14"W, a radius of 40.31 feet, an arc length of 52.44 feet;
Thence S00° 31' 52.28"W, a distance of 55.62 feet;
Thence along a curve with a chord bearing of S66° 14' 01.89"E, a radius of 18.99 feet, an arc length of 33.86 feet;
Thence along a curve with a chord bearing of S66° 14' 01.89"E, a radius of 18.99 feet, an arc length of 33.86 feet;
Thence along a curve with a chord bearing of S82° 03' 23.56"W, a radius of 83.32 feet, an arc length of 107.55 feet;
Thence along a curve with a chord bearing of S64° 48' 44.64"E, a radius of 78.53 feet, an arc length of 75.24 feet;
Thence along a curve with a chord bearing of N29° 27' 25.22"E, a radius of 46.80 feet, an arc length of 41.60 feet;
Thence along a curve with a chord bearing of S68° 23' 34.07"W, a radius of 21.87 feet, an arc length of 39.56 feet;
Thence S47° 26' 00.07"E, a distance of 132.14 feet;
Thence along a curve with a chord bearing of N15° 10' 23.88"E, a radius of 11.80 feet, an arc length of 15.21 feet;
Thence S66° 13' 50.78"W, a distance of 105.22 feet;
Thence along a curve with a chord bearing of S06° 28' 59.20"W, a radius of 41.72 feet, an arc length of 57.71 feet;
Thence along a curve with a chord bearing of N37° 28' 07.00"E, a radius of 9.05 feet, an arc length of 10.51 feet;
Thence N80° 51' 33.19"W, a distance of 54.76 feet;
Thence N88° 47' 34.22"W, a distance of 64.38 feet;
Thence along a curve with a chord bearing of S55° 49' 52.69"W, a radius of 14.52 feet, an arc length of 16.79 feet;
Thence S00° 41' 24.53"W, a distance of 45.13 feet;
Thence along a curve with a chord bearing of S57° 11' 32.22"W, a radius of 59.96 feet, an arc length of 118.15 feet;
Thence S46° 29' 22.95"W, a distance of 160.15 feet;
Thence S03° 04' 52.40"E, a distance of 194.39 feet;
Thence S87° 08' 29.64"W, a distance of 2746.12 feet;
Thence N04° 04' 47.08"W, a distance of 499.22 feet;
Thence S71° 40' 50.34"W, a distance of 577.88 feet;
Thence N16° 52' 11.98"W, a distance of 203.22 feet;
Thence S85° 49' 03.31"W, a distance of 1010.99 feet;
Thence N17° 12' 10.88"W, a distance of 505.94 feet;
Thence N77° 16' 28.06"E, a distance of 991.84 feet;
Thence N17° 00' 41.44"W, a distance of 342.09 feet;
Thence S72° 09' 29.07"W, a distance of 987.79 feet;
Thence N16° 39' 02.05"W, a distance of 680.57 feet;
Thence S13° 14' 28.09"E, a distance of 53.03 feet;
Thence N02° 34' 12.27"W, a distance of 1368.27 feet;
Thence along a curve with a chord bearing of S34° 02' 27.73"W, a radius of 48.75 feet, an arc length of 62.45 feet;
Thence N70° 59' 55.42"E, a distance of 223.76 feet;
Thence along a curve with a chord bearing of N30° 43' 35.42"E, a radius of 197.77 feet, an arc length of 219.82 feet;
Thence N02° 04' 13.62"W, a distance of 291.70 feet to the point of beginning.

PROPERTY 2
Beginning at an X,Y coordinate recognized as X= 3,856,265.96, Y= 10,111,208.07 Feet;
Thence S16° 05' 19.07"E, a distance of 450.65 feet;
Thence S67° 23' 29.10"W, a distance of 1074.38 feet;
Thence N17° 30' 50.12"W, a distance of 247.59 feet
Thence N71° 19' 50.47"E, a distance of 261.81 feet;
Thence N18° 07' 07.33"W, a distance of 237.14 feet;
Thence N68° 35' 39.38"E, a distance of 824.00 feet to the point of beginning.

PROPERTY 3
Beginning at an X,Y coordinate recognized as X= 3,856,198.62, Y= 10,112,738.81 Feet;
Thence S02° 11' 50.11"E, a distance of 611.76 feet;
Thence S71° 36' 38.30"W, a distance of 1061.83 feet;
Thence S17° 52' 16.11"E, a distance of 650.28 feet
Thence S71° 32' 05.73"W, a distance of 327.73 feet;
Thence N18° 09' 42.59"W, a distance of 684.72 feet;
Thence S71° 31' 17.97"W, a distance of 556.16 feet;
Thence N19° 02' 39.06"W, a distance of 118.65 feet;
Thence S71° 50' 45.16"W, a distance of 512.00 feet;
Thence N18° 22' 58.96"W, a distance of 304.41 feet;
Thence N69° 41' 08.76"E, a distance of 146.86 feet;
Thence N18° 28' 38.78"E, a distance of 293.23 feet;
Thence N72° 28' 49.10"E, a distance of 289.79 feet;
Thence N18° 12’ 25.53”W, a distance of 26.14 feet;
Thence N72° 00’ 53.75”E, a distance of 989.01 feet;
Thence S18° 09’ 42.61”E, a distance of 183.76 feet;
Thence N71° 36’ 38.19”E, a distance of 1208.38 feet to the point of beginning.

PROPERTY 4
Beginning at an X,Y coordinate recognized as X=3856574.59, Y=10114661.03 Feet;
Thence S78° 02' 22.95" E, a distance of 776.89 feet;
Thence along a curve with a chord bearing of S85° 37' 06.07" E, a radius of 3107.71 feet, an arc length of 438.16 feet;
Thence N88° 12' 18.98" E, a distance of 332.41 feet;
Thence S03° 16' 49.97" E, a distance of 1137.19 feet;
Thence N84° 29' 48.27" W, a distance of 1561.25 feet;
Thence N01° 58' 01.59" W, a distance of 1170.35 feet to the point of beginning.

PROPERTY 1

Beginning at an X,Y coordinate recognized as X= 3,856,625.10, Y= 10,113,389.97 Feet;
Thence S84° 24' 38.94"E, a distance of 4269.48 feet;
Thence S03° 24' 56.68"E, a distance of 3056.00 feet;
Thence N83° 24' 12.34"E, a distance of 17.58 feet;
Thence along a curve with a chord bearing of N50° 55' 52.03"E, a radius of 241.28 feet, an arc length of 155.14 feet;
Thence along a curve with a chord bearing of N20° 41' 28.44"W, a radius of 19.66 feet, an arc length of 29.40 feet;
Thence along a curve with a chord bearing of S01° 38' 25.76"E, a radius of 18.23 feet, an arc length of 30.74 feet;
Thence along a curve with a chord bearing of S76° 38' 48.96"W, a radius of 139.52 feet, an arc length of 33.78 feet;
Thence along a curve with a chord bearing of N89° 26' 44.22"W, a radius of 139.52 feet, an arc length of 33.78 feet;
Thence along a curve with a chord bearing of N43° 36' 42.14"W, a radius of 40.31 feet, an arc length of 52.44 feet;
Thence S00° 31' 52.28"W, a distance of 55.62 feet;
Thence along a curve with a chord bearing of S66° 14' 01.89"E, a radius of 18.99 feet, an arc length of 33.86 feet;
Thence along a curve with a chord bearing of S66° 14' 01.89"E, a radius of 18.99 feet, an arc length of 33.86 feet;
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Thence along a curve with a chord bearing of S64° 48' 44.64"E, a radius of 78.53 feet, an arc length of 75.24 feet;
Thence along a curve with a chord bearing of N29° 27' 25.22"E, a radius of 46.80 feet, an arc length of 41.60 feet;
Thence along a curve with a chord bearing of S68° 23' 34.07"W, a radius of 21.87 feet, an arc length of 39.56 feet;
Thence S47° 26' 00.07"E, a distance of 132.14 feet;
Thence along a curve with a chord bearing of N15° 10' 23.88"E, a radius of 11.80 feet, an arc length of 15.21 feet;
Thence S66° 13' 50.78"W, a distance of 105.22 feet;
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Thence S71° 40' 50.34"E, a distance of 577.88 feet;
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Thence N17° 00' 41.44"W, a distance of 342.09 feet;
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Thence N16° 39' 02.05"W, a distance of 680.57 feet;
Thence S13° 14' 28.09"E, a distance of 53.03 feet;
Thence S16° 05' 19.07"E, a distance of 450.65 feet;
Thence S67° 23' 29.10"W, a distance of 1074.38 feet;
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Thence S71° 36' 38.30"W, a distance of 1061.83 feet;
Thence N02° 34' 12.27"W, a distance of 1368.27 feet;
Thence S34° 02' 27.73"W R=48.75 L=62.45;
Thence N70° 59' 55.42"E, a distance of 223.76 feet;
Thence N30° 43' 35.42"E R=197.77 L=219.82;
Thence N02° 04' 13.62"W, a distance of 291.70 feet to the point of beginning.

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Thence N18° 22' 58.96"W, a distance of 304.41 feet;
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Beginning at an X,Y coordinate recognized as X=3856574.59, Y=10114661.03 Feet;
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Thence N84° 29' 48.27" W, a distance of 1561.25 feet;
Thence N01° 58' 01.59" W, a distance of 1170.35 feet to the point of beginning.

Note:
Property Boundary source is Montgomery County Appraisal District Tax Parcels.

0 350 700
SCALE IN FEET

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

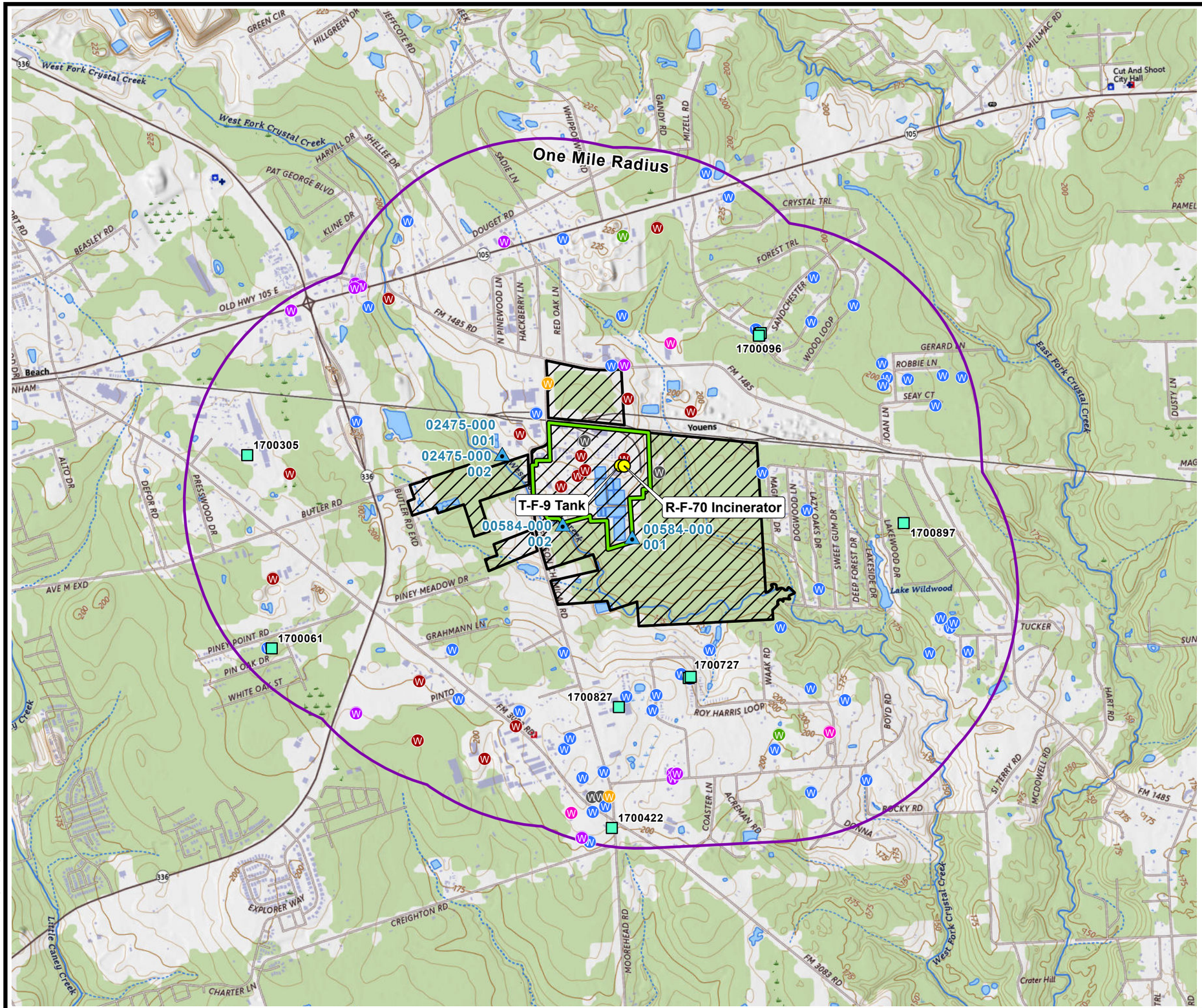
LEGAL DESCRIPTION

DRAWN BY: L WILSON	SCALE: See bar scale	PROJ. NO.	081-24-01
CHECKED BY: H MCHALE		FILE NO.	LegalDescription.dwg
APPROVED BY: H MCHALE	DATE PRINTED:	**ATTACHMENT B**	
DATE: September 2025			

Coterie ENVIRONMENTAL
840 First Ave., Suite 400
King of Prussia, PA 19406

File: C:_AD\ACCDocs\altemoplic\Projects\Project Files\Huntsman\Conroe\RCRA 2025\LegalDescription.dwg

Attachment C
Facility Boundaries and Adjacent Waters Map



Legend

- Huntsman Property Boundary
- Facility Boundary
- Hazardous Waste Units
- One Mile Radius
- Wastewater Outfalls (Permit Number and Outfall Name)
- TCEQ Public Water System Wells

TWDB Wells

- Domestic / Public Supply
- Environmental Soil Boring
- Industrial
- Irrigation
- Monitor
- Plugged or Destroyed / Unused
- Test Well / Other

Data Sources:
1. Wastewater Outfalls - TCEQ GIS Database (September 2025).
2. Public Water System Wells - TCEQ GIS Database (September 2025).
3. TWDB Wells - Texas Water Development Board GIS Database (September 2025).
4. USGS Topographic Quadrangles 7.5 Minute Series: Conroe, TX 2022; Cut and Shoot, TX 2022

N

0 1,000 2,000 FEET

1" = 2,000 FEET
1:24,000

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

USGS 7.5 MINUTE TOPOGRAPHIC MAP

DRAWN BY: L WILSON	SCALE: AS NOTED	PROJ. NO.	081-24-01
CHECKED BY: H MCHALE		FILE NO.	Part A Att C USGS Map
APPROVED BY: H MCHALE	DATE PRINTED: 9/5/2025	**PART A ATTACHMENT C**	
DATE: September 2025			

Coterie ENVIRONMENTAL
840 First Ave., Suite 400
King of Prussia, PA 19406

C:_ADVACCDocs\sitemaplic\Projects\Project Files\Huntsman\Conroe\RCRA 2025\RCRA GIS.aprx

Attachment D
Photographs

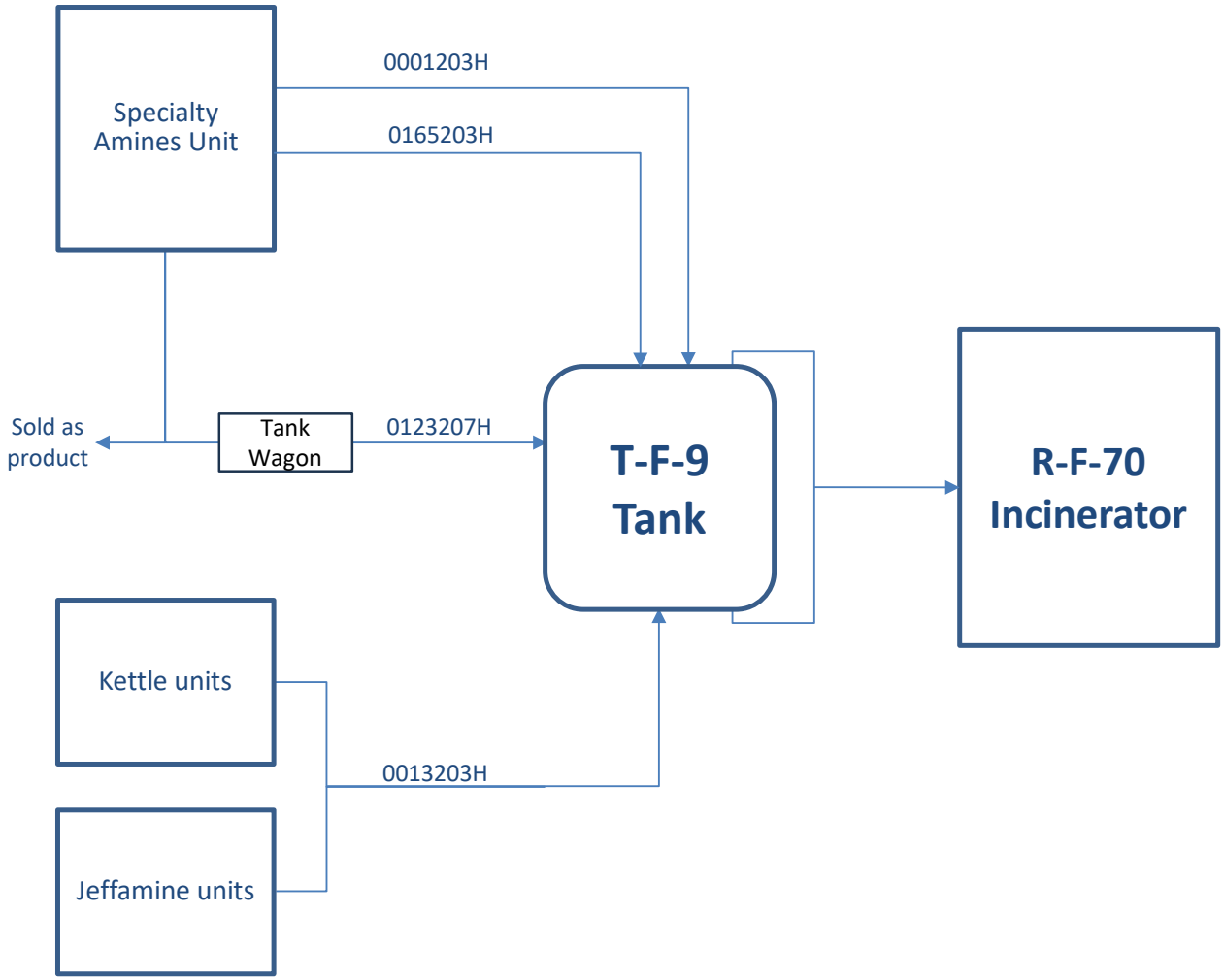
Attachment D
Photographs

T-F-9 TANK

R-F-70 INCINERATOR

Attachment E
Process Flow Diagram and Description

Attachment E
Process Flow Diagram



Attachment E
Process Flow Description

Waste stream:	**Spent methanol waste**
TCEQ waste code:	**0001203H**
USEPA waste code(s):	**D001, D002, D018, F003, U154**
Waste origination point:	**Generated in the Specialty Amines Unit**
Means of waste conveyance:	**Piped from process to storage tank**
Storage:	**T-F-9 Tank**
Ultimate waste disposition:	**Destroyed in R-F-70 Incinerator and/or disposed offsite**

Waste stream:	**Spent isopropanol waste**
TCEQ waste code:	**0013203H**
USEPA waste code(s):	**D001**
Waste origination point:	**Generated in the Kettle units and the Jeffamine units**
Means of waste conveyance:	**Piped from process to storage tank**
Storage:	**T-F-9 Tank**
Ultimate waste disposition:	**Destroyed in R-F-70 Incinerator and/or disposed offsite**

Waste stream:	**Amine mix waste**
TCEQ waste code:	**0123207H**
USEPA waste code(s):	**D001, D002, D018**
Waste origination point:	**Generated in the Specialty Amines Unit** **This material is typically sold as a product. When it does not meet product specifications and is classified as hazardous waste, it is stored in T-F-9 Tank and destroyed in R-F-70 Incinerator.**
Means of waste conveyance:	**Transferred from process to storage tank via tank wagon**
Storage:	**T-F-9 Tank**
Ultimate waste disposition:	**Destroyed in R-F-70 Incinerator and/or disposed offsite**

Waste stream:	**Morpholine bottoms lights waste**
TCEQ waste code:	**0165203H**
USEPA waste code(s):	**D001**
Waste origination point:	**Generated in the Specialty Amines Unit**
Means of waste conveyance:	**Piped from process to storage tank**
Storage:	**T-F-9 Tank**
Ultimate waste disposition:	**Destroyed in R-F-70 Incinerator and/or disposed offsite**

Attachment F
Core Data Form

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

1.1 SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☒ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 603603093		**RN** 100219740

1.2 SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

Huntsman Petrochemical LLC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0801189942	15815945181	58-1594518	147173017

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☒ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☐ **Yes** ☒ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:							
	5451 Jefferson Chemical Road						
City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*)
(936) 756- 3381		(936) 760 - 6280

1.3 SECTION III: REGULATED ENTITY INFORMATION

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Huntsman Petrochemical Conroe Plant

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	5451 Jefferson Chemical Road							
	City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	
24. County	Montgomery							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.3139		**28. Longitude (W) In Decimal:**	-95.3859	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	18	50	-95	23	09

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
2869	2899	325199	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Organic chemical manufacturing

34. Mailing Address:	5451 Jefferson Chemical Road							
	City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	
35. E-Mail Address:	None							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(936) 756- 3381		(936) 760 - 6280

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☒ Emissions Inventory Air	☒ Industrial Hazardous Waste
			MQ0012Q	50227, 30094
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
	20123, 42682, 4788			
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
	TXR05FC17	1384		
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☒ Other: P2
	WQ0000584000			P00680

1.4 SECTION IV: PREPARER INFORMATION

40. Name:	Holly Currie	41. Title:	Environmental Team Lead

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(936) 760 - 6270		( ) -	[redacted]

1.5 SECTION V: AUTHORIZED SIGNATURE

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Huntsman Petrochemical LLC	Job Title:	Manufacturing Director Americas
Name *(In Print)*:	José Ignacio Garcia De Albizu	Phone:	(936) 760 - 6226
Signature:	[signature]	Date:	12/11/25

PART B

TABLE OF CONTENTS

LIST OF APPENDICES

I. GENERAL INFORMATION

Texas Commission on Environmental Quality
Industrial & Hazardous Waste Part B Permit Application

I. General Information

Provide all Part B responsive information in Appendix I. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

Provide responsive information in Appendix I.

a. Complete Table I - General Information

b. For all incoming New, Renewal, Class 3 Permit Modification, and Major Amendment applications, the TCEQ requires that a Core Data Form (CDF) be submitted whether or not a change has occurred in the previously submitted form.
For Minor Amendment, Class 1, Class 1[1] , and Class 2 Permit Modification applications, the TCEQ requires that the CDF be only submitted if a change in any information in the previously submitted form has occurred at the time of the application submittal.
For more information regarding the Core Data Form, call (512) 239 1575 or go to the TCEQ Web site at https://www.tceq.texas.gov/permitting/central_registry/guidance.html

c. Signature on Application
It is the duty of the operator to submit an application for a permit. The person who signs the application form will often be the operator himself; when another person signs on behalf of the applicant, his title or relationship to the applicant will be shown. In all cases, the person signing the form must be authorized to do so by the applicant. An application submitted by a corporation must be signed by a responsible corporate officer such as a president, secretary, treasurer, vice president, or by his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the activity described in the form originates. In the case of a partnership or a sole proprietorship, the application must be signed by a general partner or the proprietor, respectively. In the case of a municipal, state, federal, or other public facility, the application must be signed by a principal executive officer, a ranking elected official, or another duly authorized employee. A person signing an application on behalf of an applicant must provide notarized proof of authorization.

d. Complete Interim Status Land Disposal Unit(s) Certification, as applicable

e. Submit List and Map of Adjacent Landowners List, as applicable.

TABLE OF APPENDICES

Appendix I.A:
TABLE I AND TABLE I.1

A. Applicant: Facility Operator

Name [1]	Huntsman Petrochemical LLC
Address [2]	5451 Jefferson Chemical Road
City, State [2]	Conroe, TX
Zip Code [2]	77301
Telephone Number	936-756-3381
Alternate Telephone Number	None
TCEQ Solid Waste Registration No.	30094
EPA I.D. No.	TXD008076853
Permit No.	50227
County	Montgomery
Regulated Entity Name	Huntsman Petrochemical Conroe Plant
Regulated Entity Reference Number (RN)	RN100219740
Customer Name [2]	Huntsman Petrochemical LLC
Customer Reference Number:	CN603603093
Charter Number [3]	801189942
Previous or Former Names of the Facility (if applicable)	Not applicable

B. Facility Owner: Identify the Facility Owner if different than the Facility Operator [4]

☑ Same as Facility Operator?

Name	
Address	
City, State	
Zip Code	
Telephone Number	
Alternate Telephone Number	

C. Facility Contact

1. Persons or firms who will act as primary contact:

Name, Title:	Holly Currie, Environmental Team Lead
Address	5451 Jefferson Chemical Road
City, State	Conroe, TX
Zip Code	77301
Telephone Number	936-760-6270
Alternate Telephone Number	936-405-3691
E-mail	[redacted]

Persons or firms who will act as primary contact (if more than one):

Name, Title:	S. Heather McHale, Principal, Coterie Environmental LLC
Address	840 First Avenue, Suite 400
City, State	King of Prussia, PA
Zip Code	19406
Telephone Number	610-406-2214
Alternate Telephone Number	None
E-mail	[redacted]

2. Agent in Service or Agent of Service (if you are an out-of-state company) [5]:

Name, Title:	Not applicable
Address	
City, State	
Zip Code	

3. Individual responsible for causing notice to be published:

Name, Title:	Holly Currie, Environmental Team Lead
Address	5451 Jefferson Chemical Road
City, State	Conroe, TX
Zip Code	77301
Telephone Number	936-760-6270
Alternate Telephone Number	936-405-3691
E-mail	[redacted]

4. Public place in county where application will be made available [6]:

Name, Title:	Montgomery County Central Library
Address	104 North Interstate 45
City, State	Conroe, TX
Zip Code	77301

D. Application Type and Facility Status

1. Application Type

☑ **Permit**	☑ **Amendment**	☐ **Modification**
☐ New	☐ Major	☐ Class 3
☑ Renewal	☑ Minor	☐ Class 2
☐ Interim Status		☐ Class 1[1]
☐ Compliance Plan		☐ Class 1
☐ RD&D		

2. Part of a Consolidated Permit Processing request? [30 TAC Chapter 33] No

3. Does the application contain confidential material? [7] Yes

4. Facility Status. Check all that apply

☐ Proposed	☑ On-site
☑ Existing	☑ Off-site
	☐ Commercial
	☑ Recycle
	☐ Commercial
	☐ Land Disposal
	☐ Areal or capacity expansion
	☐ Compliance plan

5. Is the facility within the Coastal Management Program boundary? No

6. Description of Application Changes
Complete Table I.1 - Description of Proposed Application Changes
Note: List all changes requested in Table. Unlisted requests risk remaining unaddressed or possibly denied if brought to the permit application reviewer's attention at a later time.

7. Total acreage of the facility being permitted: 481

8. Identify the name of the drainage basin and segment where the facility is located [8]

River Segment	West Fork San Jacinto River
River Basin	San Jacinto River Basin

E. Facility Siting Summary:

Is the facility located or proposed to be located:

1. Within a 100-year floodplain?	No
2. in wetlands?	No
3. In the critical habitat of an endangered species of plant or animal?	No
4. On the recharge zone of a sole-source aquifer?	No
5. In an area overlying a regional aquifer?	Yes
6. Withing 0.5 mile (2,640 feet) of an established residence, church, school, day care center, surface water body used for public drinking water supply, or dedicated public park?9 [30 TAC 335.202] If Yes: the TCEQ shall not issue a permit for this facility.	Yes
7. In an area in which the governing body of the country or municipality has prohibited the processing or disposal of municipal hazardous waste or industrial solid waste? If yes: provide a copy of the ordinance or order.	Yes

F. Wastewater and Stormwater Disposition

1. Is the disposal of any waste to be accomplished by a waste disposal well at this facility?	No
If Yes: List WDW Permit No(s)	
2. Will any point source discharge of effluent or rainfall runoff occur as a result of the proposed activities?	Yes

3. If Yes, is this discharge regulated by a TPDES or TCEQ permit?

☑ Yes

TCEQ Permit No. TXR05FC17

TDPES Permit No. WQ0000584000

☐ No

Date TCEQ discharge permit application filed:

Date TPDES discharge application filed:

G. Information Required to Provide Notice

State Officials List [30 TAC 39]
State Senator

Name:	District 4 – Vacant
Address	P.O. Box 12068
City, State	Austin, TX
Zip Code	78711-2068
Email	None

State Representative

Name:	Representative Cecil Bell, Jr.
Address	P.O. Box 12910
City, State	Austin, TX
Zip Code	78768-2910
Email	[redacted]

Local Officials List [30 TAC 39]
Mayor

Name:	Duke W. Coon
Address	P.O. Box 3066
City, State	Conroe, TX
Zip Code	77305-3066
Email	[redacted]

Local Health Authority

Name:	Scott Nichols
Address	501 North Thompson Street, Suite 101
City, State	Conroe, TX
Zip Code	77301
Email	[redacted]

County Judge

Name:	Mark J. Keough
Address	501 North Thompson Street, Suite 401
City, State	Conroe, TX
Zip Code	77301
Email	[redacted]

County Health Authority

Name:	Scott Nichols
Address	501 North Thompson Street, Suite 101
City, State	Conroe, TX
Zip Code	77301
Email	[redacted]

Based on the questions in the Bilingual Notice Instructions for this form, are you required to make alternate (Bilingual) notice for this application?	Yes
Bilingual Language(s):	Spanish
TCEQ Core Data Form Submitted?(Required)	Yes
Has any information changed on the TCEQ Core Data Form since the last submittal?	No
Signature on Application Submitted? (see Section I Instructions, Item c)	Yes

1. Individual, Corporation, or Other Legal Entity Name on the Permit - must match the Secretary of State's database records for the Facility).
2. The legal name and address must match the Core Data Form.
3. If the application is submitted on behalf of a corporation, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas.
4. The operator has the duty to submit an application if the facility is owned by one person and operated by another [30 TAC 305.43(b)]. The permit will specify the operator and the owner who is listed on Part A of this application [Section 361.087, Texas Health and Safety Code].
5. If the application is submitted by a corporation or by a person residing out of state, the applicant register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide omplete mailing address for the agent. The agent must be a Texas resident.
6. For applications for new permits, renewals, major amendments and Class 3 modifications a copy of the administratively complete application must be made available at a public place in the county where the facility is, or will be, located for review and copying by the public. Identify the public place in the county (e.g., public library, county court house, city hall), including the address, where the application will be made available for review and copying by the public.
7. For confidential information cross-reference the confidential material throughout the application to Section XIII: Confidential Material, and submit as a separate Section XIII document or binder conspicuously marked "CONFIDENTIAL".
8. Use the segments line map created by **TCEQ GIS Team** to find the Segment Name and Basin Name.
9. Use only for a new commercial hazardous waste management facility or areal expansion of an existing hazardous waste management facility or unit of that facility as defined in 30 TAC 335.202.

Table I.1-Description of Proposed Application Changes

Permit/Compliance Plan Application Appendix/Section	Brief Description of Proposed Change	Modification or Amendment Type	Supporting Regulatory Citation
Entire permit application	Permit renewal includes general updates to plans and programs	Minor	Not applicable
Application – Part A	General updates to facility information	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Part A Table III-1 and Attachment E	Added amine mix waste, and morpholine bottoms lights waste	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Appendix III.D – Inspections Table III.D and Inspection Plan	Removed foam concentrate (no longer will be used at facility), modified some inspection frequencies to reflect facility practices	Minor	40 CFR § 270.42 Appendix I.B.4
Application – Table III.E.3	Removed foam concentrate (no longer will be used at facility)	Minor	40 CFR § 270.42 Appendix I.B.6.c
Application – Appendix IV.B – Table IV.B	Added amine mix waste and morpholine bottoms lights waste	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Appendix IV.D – Waste Analysis Plan	Added amine mix waste and morpholine bottoms lights waste	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Appendix V.A – General Engineering Report	Added general engineering report to address 40 CFR §§ 270.14(b)(8) and (b)(10). Updated facility figures and maps.	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Appendix V.H incinerator engineering report	Modified engineering report for incinerator to address application table applicability after HWC NESHAP, special waste considerations, and startup, shutdown, and malfunction.	Minor	40 CFR § 270.42 Appendix I.A.1
Application – Appendix VII.A and VII.B – Closure Plan and Costs	Updated closure costs, closure procedures did not change	Minor	40 CFR § 270.42 Appendix I.A.1

Appendix I.B:
TCEQ Core Data Form (Form 10400)

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

1.1 SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☒ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 603603093		**RN** 100219740

1.2 SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

Huntsman Petrochemical LLC

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
0801189942	15815945181	58-1594518	147173017

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☒ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?
☐ **Yes** ☒ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:							
	5451 Jefferson Chemical Road						
City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*

18. Telephone Number	**19. Extension or Code**	**20. Fax Number** *(if applicable)*)
(936) 756- 3381		(936) 760 - 6280

1.3 SECTION III: REGULATED ENTITY INFORMATION

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☐ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Huntsman Petrochemical Conroe Plant

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	5451 Jefferson Chemical Road							
	City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	
24. County	Montgomery							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.3139		**28. Longitude (W) In Decimal:**	-95.3859	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
30	18	50	-95	23	09

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
2869	2899	325199	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Organic chemical manufacturing

34. Mailing Address:	5451 Jefferson Chemical Road							
	City	Conroe	**State**	TX	**ZIP**	77301	**ZIP + 4**	
35. E-Mail Address:	None							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(936) 756- 3381		(936) 760 - 6280

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☒ Emissions Inventory Air	☒ Industrial Hazardous Waste
			MQ0012Q	50227, 30094
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
	20123, 42682, 4788			
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
	TXR05FC17	1384		
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☒ Other: P2
	WQ0000584000			P00680

1.4 SECTION IV: PREPARER INFORMATION

40. Name:	Holly Currie	41. Title:	Environmental Team Lead

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(936) 760 - 6270		( ) -	[redacted]

1.5 SECTION V: AUTHORIZED SIGNATURE

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Huntsman Petrochemical LLC	Job Title:	Manufacturing Director Americas
Name *(In Print)*:	José Ignacio Garcia De Albizu	Phone:	(936) 760 - 6226
Signature:	[signature]	Date:	12/11/25

Appendix I.C:
SIGNATURE PAGE

Signature Page

I, **José Ignacio Garcia De Albizu**, **Manufacturing Director Americas** ,

(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: 1/5/2026

- -

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 Jose Ignacio Garcia De Albizu

On this 5th day of January , 2026

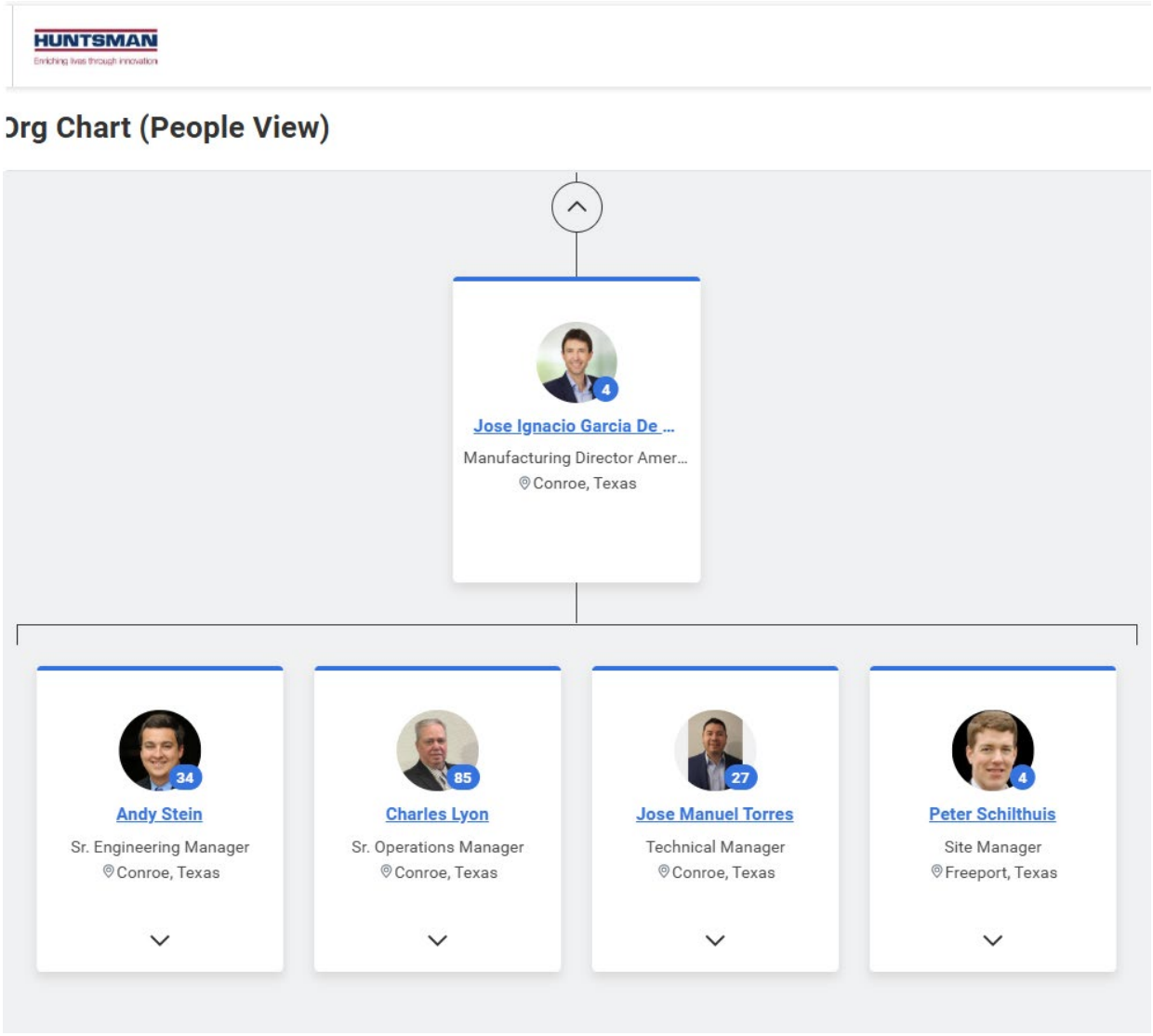
My commission expires on the 18th day of September , 2029

Notary Public in and for Montgomery County, Texas

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

KAREN D MARSHALL
Notary Public, State of Texas
Comm. Expires 09-18-2029
Notary ID 10052131

PROOF OF SIGNATURE AUTHORIZATION



Appendix I.E:

List and Map of Adjacent Landowner

Table I.E and Figure I.E

TABLE I.E
ADJACENT LANDOWNERS

MAP ID	LANDOWNER/ADDRESS
1	CECILIO ALVARADO 26593 MIDLINE RD CLEVELAND TX 77328-7356
2	AMERICAN PILEDRIVIING EQUIPMENT INC. 7032 S 196TH ST KENT WA 98032-2185
3	BRIAN & TLISHA BEUCLER 14 WINDSOR DR CONROE TX 77304-2769
4	RAY A & VERA BRUMLEY 12666 ROY HARRIS LOOP CONROE TX 77306-6604
5	CANOE 1485 LLC 1658 OPAL TRL WILLIS TX 77378-2227
6	CLEM CAVAZOS 9636 MAGNOLIA DR CONROE TX 77306-6650
7	CHEVRON PHILLIPS CHEM CO LP 10001 SIX PINES DR THE WOODLANDS TX 77380
8	CONROE 1485 LLC PO BOX 1220 CONROE TX 77305-1220
9	KRISTI DANIELS 12700 ROY HARRIS LOOP CONROE TX 77306-6606
10	CLAUDE A DOYLE 12684 ROY HARRIS LOOP CONROE TX 77306-6604
11	DRILLING SPECIALTIES CO LLC 10001 SIX PINES RD RM 7056A SPRING TX 77380-1498
12	JOE Y ELFANTY 4615 CAIRNLEIGH DR HOUSTON TX 77084-2802
13	GUILLERMINA & JAIME BUSTOS FLORES ESTEBAN 9654 MAGNOLIA DR CONROE TX 77306
14	ROBERT C EST FITZSIMMONS RR 1 BOX 4175 COLDSPRING TX 77331
15	BALTAZAR PAREDES GOMEZ 9682 LAZY OAKS DR CONROE TX 77306-6570

TABLE I.E
ADJACENT LANDOWNERS

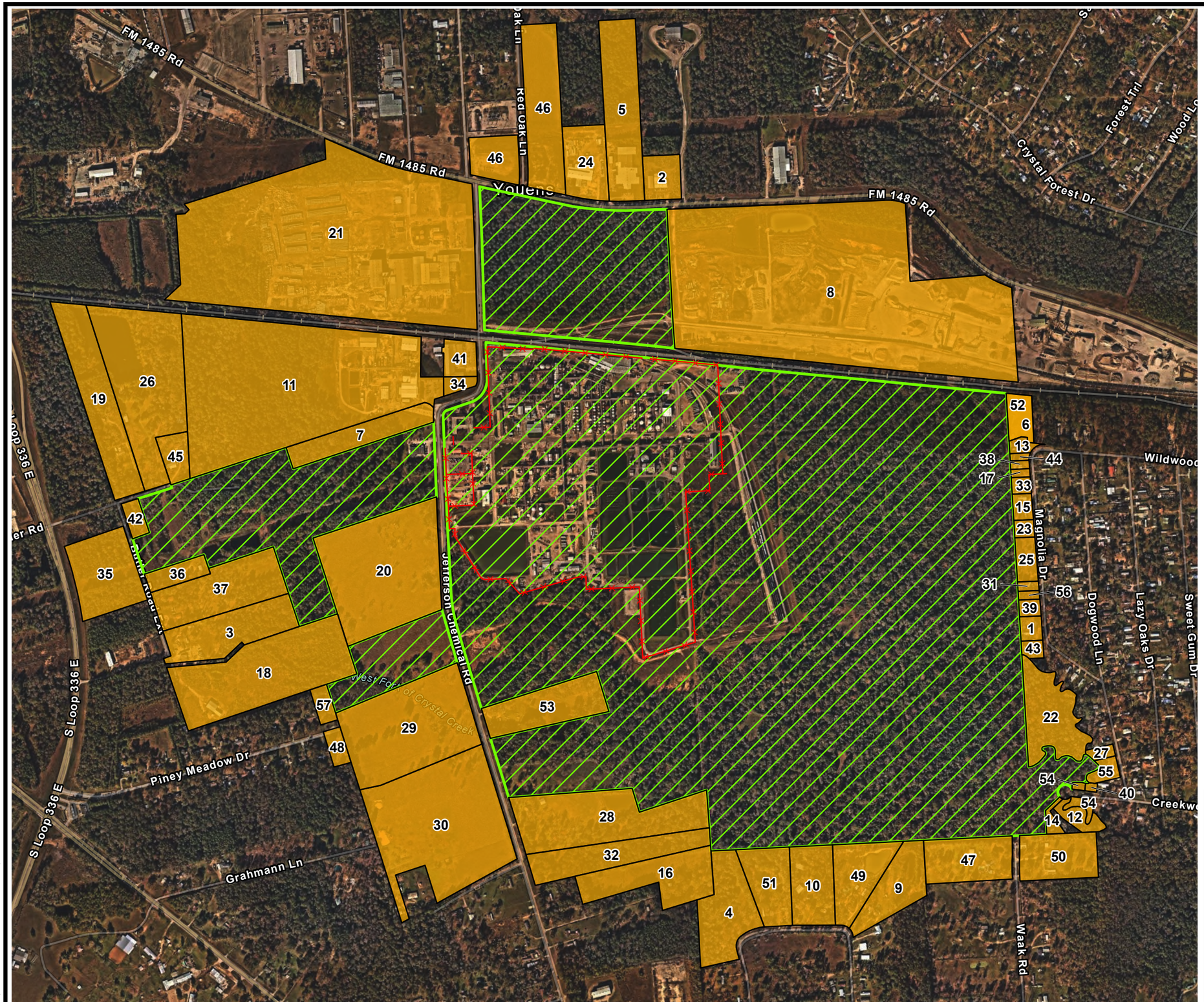
MAP ID	LANDOWNER/ADDRESS
16	JOSE L L HERNANDEZ 14122 WHISPERING PALMS DR HOUSTON TX 77066-5528
17	JIMMIE R & CONNIE M HINOJOSA 9736 N MAGNOLIA DR CONROE TX 77301
18	JL168 BUTLER LP 5600 BONHOMME RD STE B HOUSTON TX 77036-2010
19	GERALD JORDAN PO BOX 1873 CONROE TX 77305-1873
20	SHERI EST OF KENNEDY 6 LAKEVIEW VLG MONTGOMERY TX 77356-5901
21	KTI INC 3009 N. LAUREL AVE RIALTO CA 92377
22	LAKE WILDWOOD PROPERTY OWNERS ASSOC PO BOX 2954 CONROE TX 77305-2954
23	JAMES & KRYSTIN LAUGHLIN 9770 MAGNOLIA DR CONROE TX 77306-6651
24	LEVEL 11 TECHNOLOGIES INC 3819 FM 1485 RD CONROE TX 77306-7485
25	RANDY & LINDA LIGHTLE 9816 MAGNOLIA DR CONROE TX 77306-6652
26	DAVID & LAWANNA LUCAS 3941 BUTLER RD CONROE TX 77301-6507
27	GILBERTO MARTINEZ 9891 MAGNOLIA DR CONROE TX 77306-6655
28	BARBARA ANN MASTERSON 10193 JEFFERSON CHEMICAL RD CONROE TX 77301-6807
29	MARCUS NEILL MASTERSON 12320 OWENS CONROE TX 77301-6710
30	WILLIAM E MASTERSON 12130 MASTERSON LN CONROE TX 77301-6700

TABLE I.E
ADJACENT LANDOWNERS

MAP ID	LANDOWNER/ADDRESS
31	MANUEL DE JESUS & SARAH MOLINA 9852 MAGNOLIA DR CONROE TX 77306-6652
32	LLOYD & KAREN NICHOLS 7215 BREELAND RD WILLIS TX 77378-9559
33	ROSALVA V & HUMBERTO P MENDOZA OLIVARES 9744 MAGNOLIA DR CONROE TX 77306-6651
34	P P EQUIPMENT INC 5400 JEFFERSON CHEMICAL RD CONROE TX 77301-6836
35	ANDREW & JOSIE PATRICK 18155 RABON CHAPEL RD MONTGOMERY TX 77316-4020
36	DANNY MICHAEL PATRICK 9917 BUTLER ROAD EXT CONROE TX 77301-6511
37	BRADLEY A & CHANTELLE R KEMPINSKI PAUL 9929 BUTLER ROAD EXT CONROE TX 77301-6511
38	RICARDO & ESMERALDA E GOMEZ PEREIRA 9746 MAGNOLIA DR CONROE TX 77306-6651
39	DANIEL C PEREZ 505 W CHESTNUT ST GRAPELAND TX 75844-2343
40	PEDRO A & BLANCA A PEREZ 603 HILLIARD ST CONROE TX 77301-1840
41	PHOENIX PLASTICS LP 5400 JEFFERSON CHEMICAL RD CONROE TX 77301
42	JOHN M REDFORD 15467 BEN WIGGINS RD CONROE TX 77303-4807
43	JERRY ET AL REISNER PO BOX 15153 HUMBLE TX 77347-5153
44	REYNA L TEFADA & RESENDIS 121 NOTTINGHAM LN CONROE TX 77301-5134
45	KENNETH REY 14300 BERT BROWN CONROE TX 77302

TABLE I.E
ADJACENT LANDOWNERS

MAP ID	LANDOWNER/ADDRESS
46	RMDMG LTD PO BOX 1220 CONROE TX 77305-0691
47	SOFIA R ROMAGUERA 10292 WAAK RD CONROE TX 77306-6620
48	STEVIE ROWE 4022 PINEY MEADOW DR CONROE TX 77301-6712
49	DWAYNE SANDER 1920 TREBLE DR STE H8 HUMBLE TX 77338
50	JAMES & PAULA SEWALL 10291 WAAK RD CONROE TX 77306
51	RANDALL & KATHLEEN SNEED 12674 ROY HARRIS LOOP CONROE TX 77306
52	MARIANO TORRES 9636 MAGNOLIA DR CONROE TX 77306-6650
53	JACK URECH 10045 JEFFERSON CHEMICAL RD CONROE TX 77301-6803
54	JAZLYN VASQUEZ 1907 ROYAL COLLEGE HILL RD CONROE TX 77304-2566
55	GABINO & AMALIA GONZALEZ VILLEDA 10114 DOGWOOD LN CONROE TX 77306-6631
56	HILARIO & EMILIA GONZALEZ VIZUETH 109 LILLIAN ST CONROE TX 77301-2029
57	FARON B & MELISSA YOUNG 4025 PINEY MEADOW DR CONROE TX 77301-6713



Legend

- Facility Boundary
- 1 — Adjacent Landowners
- Facility Fence Line

Parcel Source:
Montgomery County Appraisal District GIS Data, April 2025

0 400 800
FEET

1" = 800 FEET
1:9,600

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

ADJACENT LANDOWNER MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE		AS NOTED	FILE NO.	Project.mxd
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE 1.E**	
DATE:	April 2025	*4/22/2025*			

Coterie ENVIRONMENTAL
1150 First Ave., Ste 501
King of Prussia, PA 19406

J:\Prj\Huntsman\Conroe\RCRA 2022\Project.aprx

II. FACILITY SITING CRITERIA

II. Facility Siting Criteria

Provide all Part B responsive information in Appendix II. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

For all new hazardous waste management facilities or areal expansions of existing hazardous waste management facilities provide a report which includes all applicable information regarding Unsuitable Site Characteristics found in 30 TAC Chapter 335, Subchapter G. The report must address each requirement applicable to the type of activity submitted in the application. Reference specific rule numbers whenever possible. Supporting information may be cross-referenced to other parts of this application such as Section V - Engineering Report or Section VI - Geology Report, but information submitted in previous applications must be fully reproduced herein. In addition, provide the information in Table II, as applicable.

For permit renewals provide a report which includes all applicable information regarding Unsuitable Site Characteristics found in 30 TAC Chapter 335, Subchapter G. In addition, provide the information in Table II, as applicable. The applicant may resubmit the information submitted with the original permit application provided this information has not changed. For a renewal this information is necessary to ensure a complete application is received.

For capacity expansions of existing facilities, please provide information in Table II, as applicable. Please note however, that additional technical information may be requested to address any facility siting characteristics noted in Table I, under Facility Siting Summary.

> **NOTE:** The standards contained in §335.204(a)(6) - (9), (b)(7) - (12), (c)(6) - (11), (d)(6) - (11), and (e) (8) - (13) are not applicable to facilities that have submitted a notice of intent to file a permit application pursuant to §335.391 of this title (relating to Pre-Application Review) prior to May 3, 1988, or to facilities that have filed permit applications pursuant to §335.2(a) of this title which were submitted in accordance with Chapter 305 of this title and that were declared to be administratively complete pursuant to §281.3 of this title (relating to Initial Review) prior to May 3, 1988.[30 TAC 335.201(b)]

A. Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills.

   Complete Table II.A-Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills.

B. Additional Requirements for Land Treatment Facilities [30 TAC 335.204(b)]

   Complete Table II.B.-Additional Requirements for Land Treatment Facilities [30 TAC 335.204(b)

C. Additional Requirements for Waste Piles [30 TAC 335.204(c)]

   Complete Table II.C.-Additional Requirements for Waste Piles [30 TAC 335.204(c)]

D. Additional Requirements for Storage Surface Impoundments [30 TAC 335.204(d)]

   Complete Table II.D.- Additional Requirements for Storage Surface Impoundments [30 TAC 335.204(d)]

E. Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with

wastes in place)

Complete Table II.E. - Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with wastes in place)

F. Flooding

1. Identify whether the facility is located within a 100-year flood plain [40 CFR 270.14(b)(11)(iii)]. This identification must indicate the source of data for such determination and include a copy of relevant documentation (e.g., flood maps, if used and/or calculations). The boundaries of the hazardous waste management facility must be shown on the flood plain map. If the facility is not subject to inundation as a result of a 100-year flood event, indicate that the facility is not within the 100-year flood plain, and do not complete the remainder of the Flooding section in Table II. An applicant for a proposed hazardous waste landfill, areal expansion of a hazardous waste landfill, or a commercial hazardous waste land disposal unit may not rely solely on flood plain maps prepared by the Federal Emergency Management Agency (FEMA) or a successor agency for this determination.

2. If the facility is located within the 100-year flood plain the applicant must provide information detailing the specific flooding levels and other events (e.g., Design Hurricane projected by Corps of Engineers) which impact the flood protection of the facility. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, construction, operating, or maintaining the facility to withstand washout from a 100-year flood.

3. State whether any flood protection devices exist at the facility (e.g., flood walls, dikes, etc.), designed to prevent washout from the 100-year flood.

   a. If Yes: provide in Section V an engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the facility as a consequence of a 100-year flood. [40 CFR 270.14(b)(11)(iv)(A)]

   Include structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., flood walls, dikes) at the facility and how these will prevent washout. [40 CFR 270.14(b)(11)(iv)(B)]

   b. If No: the applicant shall provide in Section V a plan for constructing flood protection devices and a schedule including specific time frames for completion. Provide engineering analyses to indicate the various hydrodynamic and hydrostatic forces expected to result at the facility as a consequence of a 100-year flood. [40 CFR 270.14(b)(11)(iv)(A)]

   Include structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., flood walls, dikes) at the facility and how these will prevent washout. [40 CFR 270.14(b)(11)(iv)(B)]

4. If applicable, and in lieu of the flood protection devices from above, provide a detailed description of the procedures to be followed to remove hazardous waste to safety before the facility is flooded. [40 CFR 270.14(b)(11)(iv)(c)] The

procedures should include:

a. Timing of such movement relative of flood levels, including estimated time to move the waste, to show that such movement can be completed before flood waters reach the facility. Indicate which specific events shall be use to begin waste movement (e.g., Hurricane warning, Flash Flood watch, etc.);

b. A description of the location(s) to which the waste will be moved and a demonstration that these facilities will be eligible to receive hazardous waste in accordance with appropriate regulations (i.e., a permitted facility);

c. The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use; and

d. The potential for accidental discharges of the waste during movement and precautions taken to preclude accidental discharges.

G. Additional Information Requirements

1. For a new hazardous waste management facility, include a map of relevant local land-use plans and descriptions of the major routes of travel in the vicinity of the facility to be used for the transportation of hazardous waste to and from the facility covering at least a five (5)-mile radius from the boundaries of the facility. [30 TAC 305.50(a)(10)(A)&(D)]

2. For a new commercial hazardous waste management facility as defined in 30 TAC 335.202 or the subsequent areal expansion of such a facility or unit of that facility, indicate on the map the nearest established residence, church, school, day care center, surface water body used for a public drinking water supply, and dedicated public park.

3. For new commercial hazardous waste management facilities, submit the following: [30 TAC 305.50(a)(12)(A)]

   a. the average number, gross weight, type, and size of vehicles used to transport hazardous waste;

   b. the major highways nearest the facility irrespective of distance; and

   c. the public roadways used by vehicles traveling to and from the facility within a minimum radius of 2.5 miles from the facility.

4. Include the names and locations of industrial and other waste-generating facilities within 0.5 miles for a new on-site hazardous waste management facility and the approximate quantity of hazardous waste generated or received annually at those facilities. [30 TAC 305.50(a)(10)(B)&(C)]

5. Include the names and locations of industrial and other waste-generating facilities within 1.0 miles for a new commercial hazardous waste management facility and the approximate quantity of hazardous waste generated or received annually at those facilities. [30 TAC 305.50(a)(10)(B)&(C)]

6. For existing land disposal facility units provide documentation that the information required by 30 TAC 335.5 has been placed in the county deed records. If previously submitted, please reference the submittal by date and registration number.

7. If a surface impoundment or landfill (including post-closure) is to be permitted, provide exposure information to accompany this application and in accordance

with 30 TAC 305.50(a)(8) and 40 CFR 270.10(j). This information will be considered separately from the TCEQ application completeness determination.

8. For a hazardous waste management facility requesting a capacity expansion of an existing hazardous waste management facility, please provide in Section VI.A.1.a the requested fault delineation information. [30 TAC 305.50(a)(4)(D)]

TABLE OF APPENDICES

APPENDIX	TITLE
II.A	Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills (Table II and Site Selection Report)
II.B	Additional Requirements for Land Treatment Facilities (Not Applicable)
II.C	Additional Requirements for Waste Piles (Not Applicable)
II.D	Additional Requirements for Storage Surface Impoundments (Not Applicable)
II.E	Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with wastes in place) (Not Applicable)
II.F	Flooding (Flooding Report)
II.G	Additional Information Requirements (Not Applicable)

Appendix II.A:

Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills (Table II and Site Selection Report)

Table II

Table II contains the following: Table II.A, Table II.B, Table II.C, Table II.D, Table II.E and Flooding from Section II. F of the Part B Application

Table II.A - Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills

Is the facility located or proposed to be located[1]:

In wetlands? [as applicable: 30 TAC 335.204(a)(2), (b)(2), (c)(2), (d)(2), and/or (e)(2)	No
If Yes: the TCEQ shall not issue a permit for a new hazardous waste management facility or areal expansion of an existing facility into wetlands, pursuant to 30 TAC 335.205(a)(1).	
In the critical habitat of an endangered species of plant or animal?[6] [as applicable: 30 TAC 335.204(a)(8), (b)(10), (c)(9), (d)(9), and/or (e)(11)]	No
If Yes: submit in Section V information demonstrating that design, construction, and operational features will prevent adverse effects on such critical habitat.	
On the recharge zone of a sole-source aquifer?2 [30 TAC 335.204(a)(3), (b)(3), (c)(3), (d)(3), and/or (e)(3)]	No
If Yes: then for storage and processing facilities (excluding storage surface impoundments), submit in Section V information demonstrating that secondary containment is provided to preclude migration to groundwater from spills, leaks, or discharges.	
In an area overlying a regional aquifer? [as applicable: 30 TAC 335.204(a)(4), (b)(4), (c)(4), (d)(4), and/or (e)(4)]	Yes, see below
If Yes: submit site-specific information in Section V and/or Section VI demonstrating compliance with 30 TAC 335.205(a)(1).	
In areas where soil unit(s) are within five feet of the containment structure, or treatment zone, as applicable, that have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10-5 cm/sec? [as applicable: 30 TAC 335.204(a)(5), (b)(5), (c)(5), (d)(5), and/or (e)(5)]	No
If Yes: provide additional information in Sections V and/or Section VI demonstrating compliance with 30 TAC 335.205(a)(1)	
In areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system?[6] [as applicable: 30 TAC 335.204 (a)(6), (b)(7), (c)(6), and/or (e)(8)].	No
If Yes: provide information in Section V demonstrating compliance with 30 TAC 335.205(a)(1).	

In areas of active geologic processes, including but not limited to erosion, submergence, subsidence, faulting, karst formation, flooding in alluvial flood wash zones, meandering river bank cuttings, or earthquakes?[6] [as applicable: 30 TAC 335.204(a)(7), (b)(8) ,(c)(7), (d)(7), and/ or (e)(9)]	Yes, see below
Within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures?[6] [as applicable: 30 TAC 335.204(a)(9), (b)(12) ,(c)(11), (d)(11), and/or (e)(13)]	No

If Yes: specify in Section V the design, construction, and operational features that will prevent adverse effects resulting from any fault movement.

If a fault is found to be present, the width and location of the actual or inferred surface expression of the fault, including both the identified zone of deformation and the combined uncertainties in locating a fault trace, must be determined by a qualified geologist or geotechnical engineer and reported in Section VI.

Table II.B. - Additional Requirements for Land Treatment Facilities [30 TAC 335.204(b)]:

Is the land treatment facility located or proposed to be located:

Within 1000 feet of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park which is in use at the time the notice of intent to file a permit application is filed with the commission, or which is in use at the time the permit application is filed with the commission?	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste land treatment unit or an areal expansion of an existing land treatment unit, pursuant to 30 TAC 335.204(b)(6) and 335.205(a).	
Within 1000 feet of an area subject to active coastal shoreline erosion even though the area is protected by a barrier island or peninsula?	
If Yes: submit in Section V.F design, construction, and operational features which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
Within 5000 feet of a coastal shoreline subject to active shoreline erosion and which is unprotected by a barrier island or peninsula.	
If Yes: submit Section V.F design, construction and operational features, which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
On a barrier island or peninsula?	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste land treatment unit or an areal expansion of an existing land treatment unit, pursuant to 30 TAC 335.204(b)(11) and 335.205(a)(1).	

Table II.C. - Additional Requirements for Waste Piles [30 TAC 335.204(c)]

Is the waste pile located or proposed to be located:

Within 1000 feet of an area subject to active coastal shoreline erosion even though the area is protected by a barrier island or peninsula?	
If Yes: submit in Section V.E design, construction, and operational features on the facility which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
Within 5000 feet of a coastal shoreline subject to active shoreline erosion and which is unprotected by a barrier island or peninsula.	
If Yes: submit Section V.E design, construction, and operational features which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
On a barrier island or peninsula?[6]	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste pile or an areal expansion of an existing waste pile, pursuant to 30 TAC 335.204(c)(10) and 335.205(a)(1).	

Table II.D. - Additional Requirements for Storage Surface Impoundments [30 TAC 335.204(d)]

Is the land treatment facility located or proposed to be located:

Within 1000 feet of an area of active coastal shoreline erosion even though the area is protected by a barrier island or peninsula	
If Yes: submit in Section V.D design, construction, and operational features of the facility which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
Within 5000 feet of a coastal shoreline subject to active shoreline erosion and which is unprotected by a barrier island or peninsula.	
If Yes: then submit in Section V.D design, construction, and operational features which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
On a barrier island or peninsula?[6]	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste storage surface impoundment or an areal expansion of an existing storage surface impoundment, pursuant to 30 TAC 335.204(d)(10) and 335.205(a)(1).	

Table II.E. - Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with wastes in place)

Is the landfill located or proposed to be located:

Within 1000 feet of an established residence, church, school, day care center, surface water body used for a public drinking water supply, or dedicated public park which is in use at the time the notice of intent to file a permit application is filed with the commission, or which is in use at the time the permit application is filed with the commission?	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste landfill or an areal expansion of an existing landfill, pursuant to 30 TAC 335.204(e)(6) and 335.205(a)(1).	
(For commercial hazardous waste landfills) in the 100-year flood plain of a perennial stream that is delineated on a flood map adopted by the Federal Emergency Management Agency after September 1, 1985, as zone A1-99, VO, or V1-30?	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste landfill or an areal expansion of an existing landfill, pursuant to 30 TAC 335.204(e)(7) and 335.205(a)(1).	
Within 1000 feet of an area subject to active coastal shoreline erosion even though the area is protected by a barrier island or peninsula?	
If Yes: then submit in Section V.G design, construction, and operational features which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
Within 5000 feet of a coastal shoreline subject to active shoreline erosion and which is unprotected by a barriers island or peninsula.	
If Yes: then submit in Section V.G design, construction, and operational features which will prevent adverse effects resulting from storm surge and erosion or scouring by water.	
On a barrier island or peninsula?	
If Yes: the TCEQ shall not issue a permit for a new hazardous waste landfill or an areal expansion of an existing landfill, pursuant to 30 TAC 335.204(e)(12) and 335.205(a)(1).	

Flooding (see Section II Instructions, Item F)

Is the facility within a 100-year flood plain?	No
Has a flood plain map been provided?	Yes
Has information about flooding levels and events, and other special flooding factors, been provided?[3]	No
Do any flood protection devices exist at the facility (e.g., flood walls, dikes, etc.) designed to prevent washout from the 100-year flood?[3]	Not Applicable
If Yes: provide in Section V an engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the facility as a consequence of a 100-year flood. [40 CFR 270.14(b)(11)(iv)(A)][4]	
If No: the applicant shall provide in Section V a plan for constructing flood protection devices and a schedule including specific time frames for completion. Provide engineering analyses to indicate the various hydrodynamic and hydrostatic forces expected to result at the facility as a consequence of a 100-year flood. [40 CFR 270.14(b)(11)(iv)(A)][5]	
If applicable, and in lieu of the flood protection devices from above, was a detailed description of the procedures to be followed to remove hazardous waste to safety before the facility is flooded provided?[3, 6]	Not Applicable
Additional Information Requirements (see Section II instructions, Item G): Submitted?	No

1. Provide the source of information for all questions in the appendix.
2. Note: Land treatment facilities, waste piles, storage surface impoundments, and landfills may not be located on the recharge zone of a sole-source aquifer.
3. Only required to be submitted if the facility is subject to inundation as a result of a 100-year flood event.
4. Include structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., flood walls, dikes) at the facility and how these will prevent washout. [40 CFR 270.14(b)(11)(iv)(B)]
5. Include structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., flood walls, dikes) at the facility and how these will prevent washout. [40 CFR 270.14(b)(11)(iv)(B)]
6. The standards contained in §335.204(a)(6) - (9), (b)(7) - (12), (c)(6) - (11), (d)(6) - (11), and (e) (8) - (13) are not applicable to facilities that have submitted a notice of intent to file a permit application pursuant to §335.391 of this title (relating to Pre-Application Review) prior to May 3, 1988, or to facilities that have filed permit applications pursuant to §335.2(a) of this title which were submitted in accordance with Chapter 305 of this title and that were declared to be administratively complete pursuant to §281.3 of this title (relating to Initial Review) prior to May 3, 1988.[30 TAC 335.201(b)]

HUNTSMAN

Enriching lives through innovation

HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

SITE SELECTION REPORT

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This report provides supporting information to demonstrate compliance with 30 TAC Chapter 335 Subchapter G.

2.0 WETLANDS

30 TAC § 335.204(a)(2) requires that a processing facility may not be located in wetlands. Figure 1 in Attachment A shows the United States Fish and Wildlife Service, National Wetlands Inventory and the location of the Conroe Plant. The figure shows that the area of the hazardous waste management units is not located in wetlands.

3.0 SOLE-SOURCE AQUIFERS

30 TAC § 335.204(a)(3) requires that a processing facility may not be located on the recharge zone of a sole-source aquifer unless secondary containment is provided to preclude migration to groundwater from spills, leaks or discharges. Figure 2 in Attachment A shows the United States Environmental Protection Agency (USEPA) Region 6 sole-source aquifers in Texas and surrounding states. The closest to the Conroe Plant is the Chicot Aquifer System located in south-western Louisiana. The recharge zone for this aquifer is located directly north of it. The Conroe Plant is located west of the Chicot Aquifer System and is therefore not located in the recharge zone.

4.0 OVERLYING REGIONAL AQUIFERS

30 TAC § 335.204(a)(4) requires that a processing facility may not be located in areas overlying regional aquifers unless the regional aquifer is separated from the facility by a minimum of ten feet of material with a hydraulic conductivity toward the aquifer not greater than 10^{-7} centimeters per second (cm/sec), or a thicker interval of more permeable material which provides equivalent or greater retardation to pollutant migration or secondary containment is provided to preclude migration to groundwater from spills, leaks or discharges. Figure 3 in Attachment A shows the Texas Water Development Boards designation and location of the major aquifers of Texas. The closest aquifer to the Conroe Plant is the

Gulf Coast Aquifer located in southeast Texas. The recharge zone for this aquifer is located directly north of it. The Conroe Plant is not located in the recharge zone.

5.0 Unified Soil Classification or Hydraulic Conductivity

30 TAC § 335.204(a)(5) requires that a processing facility may not be located in areas where soil unit(s) within five feet of the containment structure have a Unified Soil Classification of GW, GP, GM, GC, SW, SP, or SM, or a hydraulic conductivity greater than 10^{-5} cm/sec unless secondary containment is provided or the soil unit is not sufficiently thick and laterally continuous to provide a significant pathway for waste migration. Figure 4 in Attachment A presents the United States Department of Agriculture, Natural Resources Conservation Service soil designations at the Conroe Plant. The soil units in the area of the hazardous waste management units do not have Unified Soil Classifications of GW, GP, GM, GC, SW, SP, or SM.

6.0 Public Drinking Water Locations

30 TAC § 335.204(a)(6) requires that a processing facility may not be located in areas of direct drainage within one mile of a lake at its maximum conservation pool level, if the lake is used to supply public drinking water through a public water system, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from a release in such areas. Figure 5 in Attachment A provides information on the nearest surface water intake. This location was determined from information in the Texas Commission on Environmental Quality (TCEQ) Geographic Information System (GIS) Data Hub. The nearest surface water intake is approximately 10 miles from the hazardous waste management units.

7.0 Active Geologic Processes

30 TAC § 335.204(a)(7) requires that a processing facility may not be located in areas of active geologic processes unless the design, construction, and operational features of the facility will prevent adverse effects resulting from the geologic processes. Figure 6 (Earthquake Probability) and Figure 7 (U.S. Karst Map) in Attachment A show that there are no active geological processes in the area of the Conroe Plant, as designated by the United States Geological Survey. Additionally, there are no abrupt changes in land surface elevation, and there are no major fluvial environments in the immediate area. Therefore, there are no areas that would be prone to anomalous erosion or land subsidence.

8.0 Critical Habitats

30 TAC § 335.204(a)(8) requires that a processing facility may not be located in the critical habitat of an endangered species of plant or animal unless the design, construction, and operational features of the facility will prevent adverse effects on the critical habitat of the endangered species. Figure 8 in

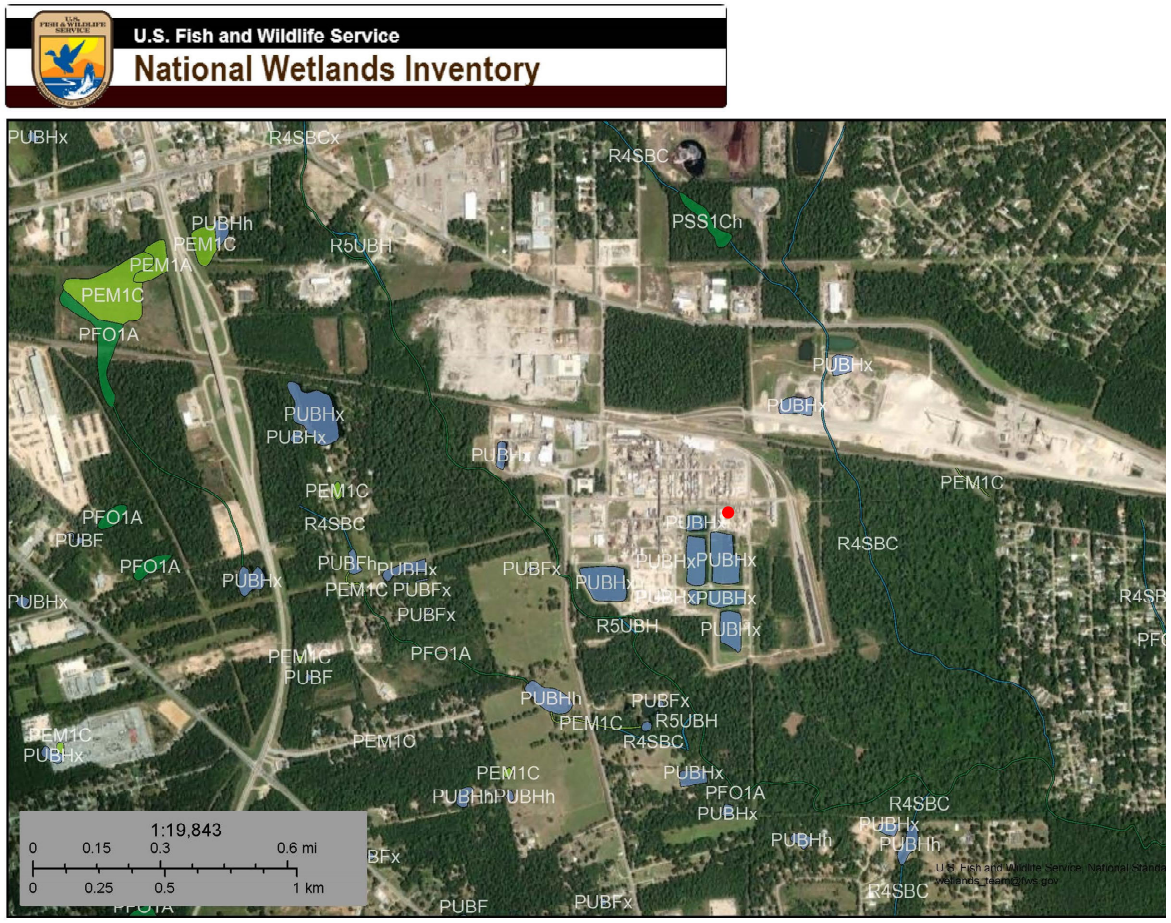
Attachment A presents the United States Fish and Wildlife Service critical habitat locations. The nearest critical habitat lies approximately 16 miles east of the Conroe Plant.

9.0 FAULTS

30 TAC § 335.204(a)(9) requires that a processing facility may not be located within 30 feet of the upthrown side or 50 feet of the downthrown side of the actual or inferred surface expression of a fault that has reasonably been shown to have caused displacement of shallow Quaternary sediments or of man-made structures, unless the design, construction, and operational features of the facility will prevent adverse effects resulting from fault movement. The website http://earthquake.usgs.gov was reviewed to determine the presence of any faults near the Conroe Plant. None were found.

Attachment A:
FIGURES

FIGURE 1
WETLAND DELINEATION



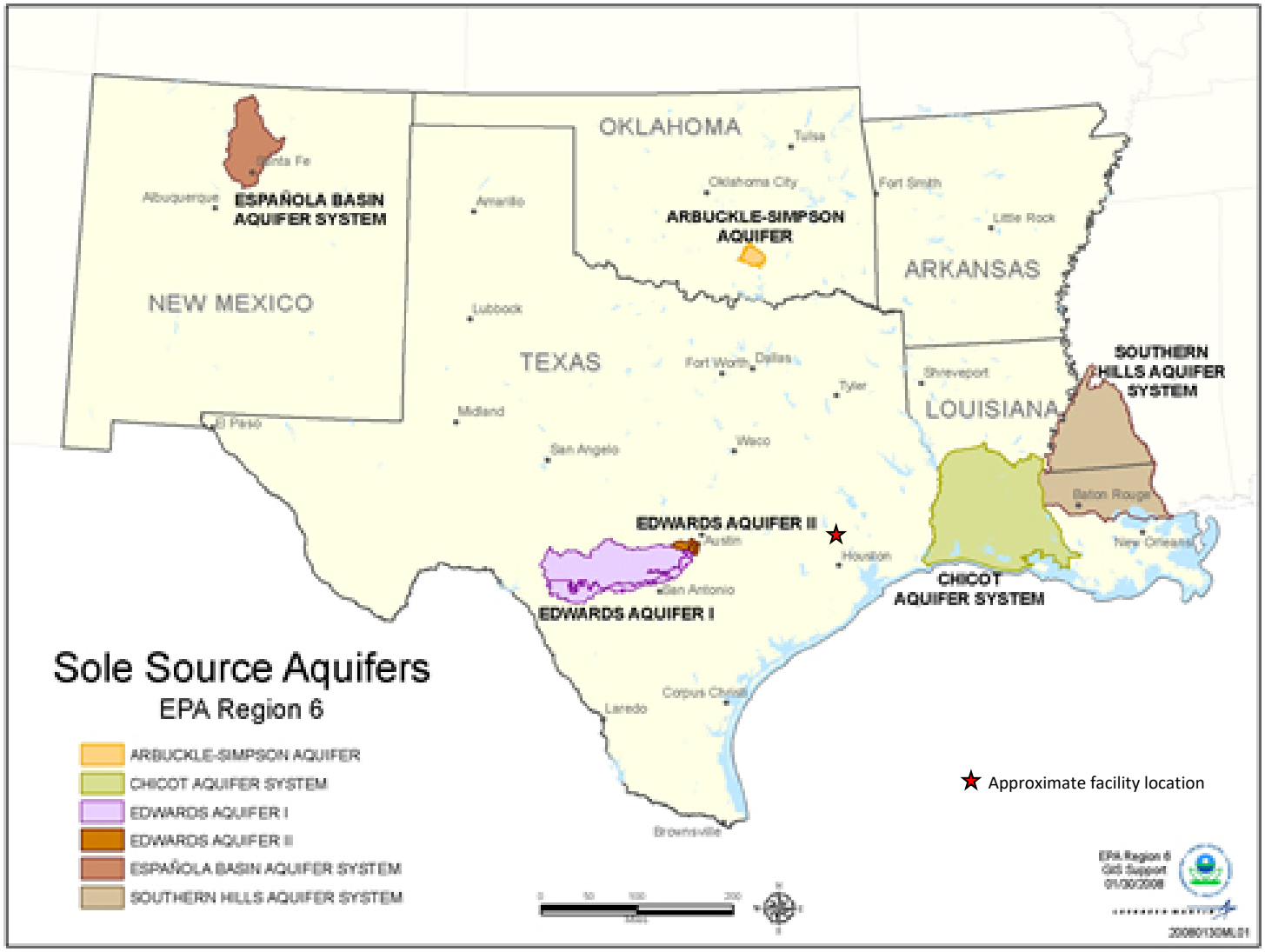
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Approximate Location of Hazardous Waste Management Units

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

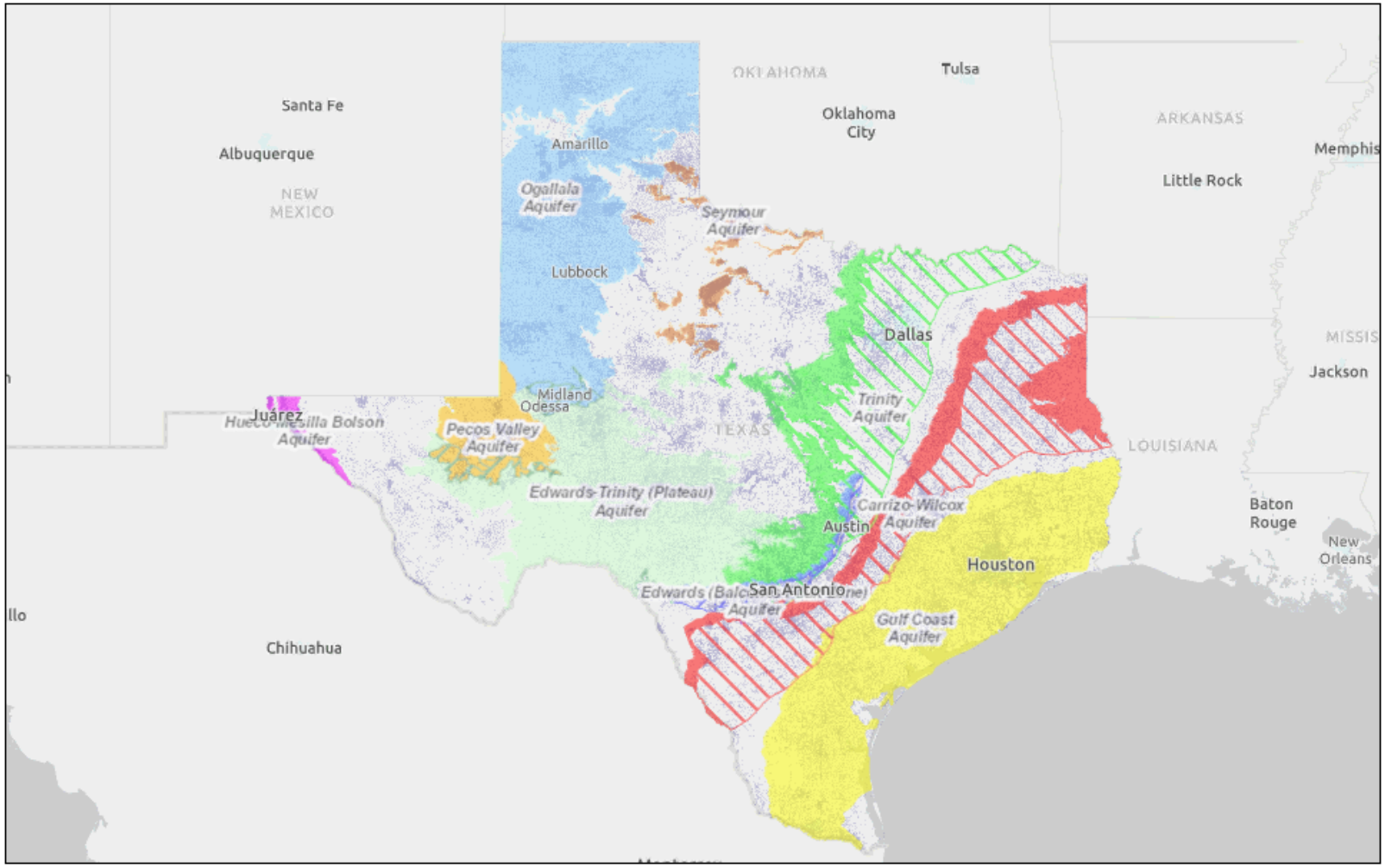
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

FIGURE 2
SOLE SOURCE AQUIFERS



Source: USEPA Region 6, Sole Source Aquifer Program

FIGURE 3
MAJOR AQUIFERS OF TEXAS

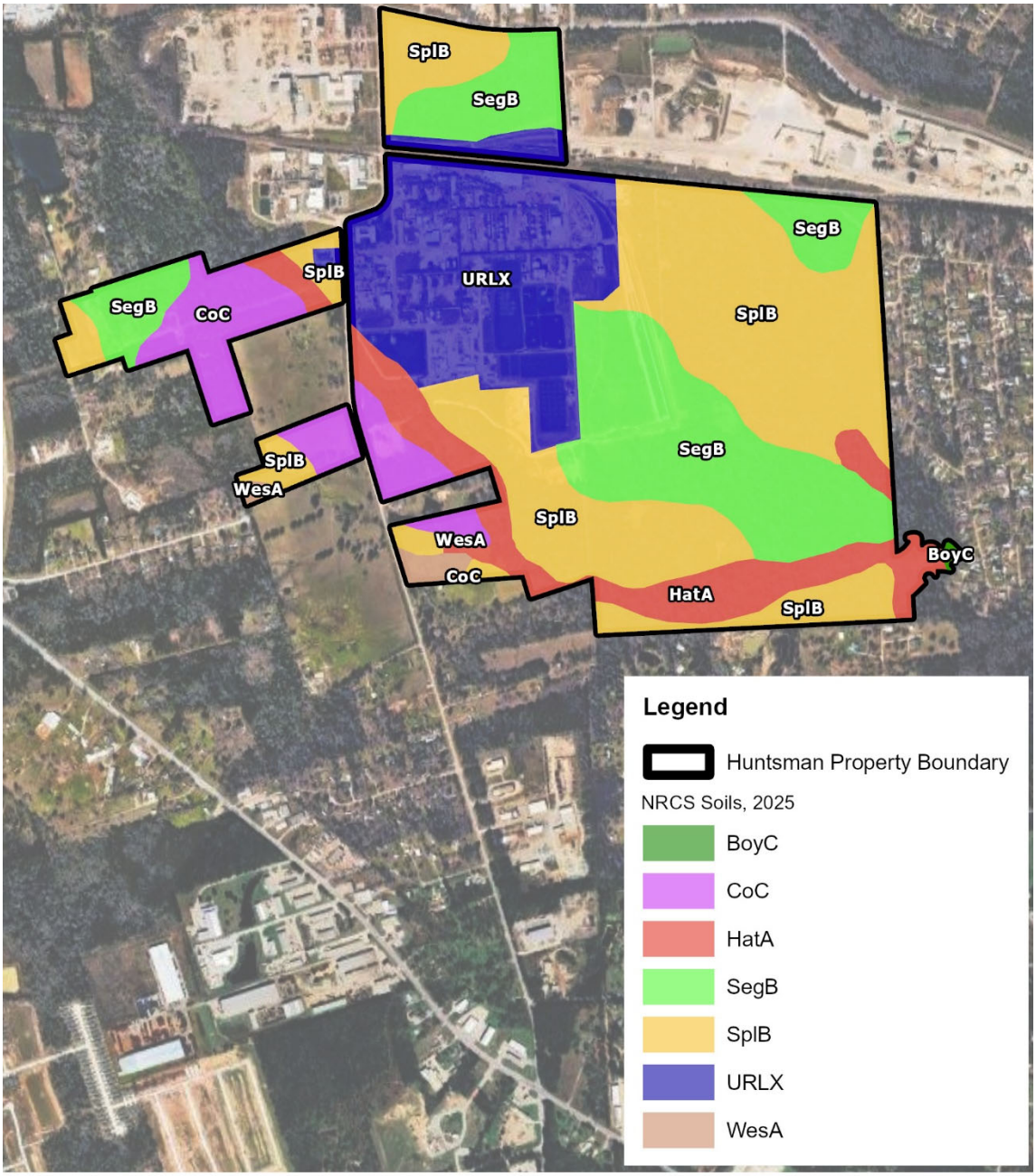


Texas Water Development Board

The data in Water Data Interactive represents the best available information provided by the TWDB and third-party cooperators of the TWDB. The TWDB provides information via this website as a public service. Neither the State of Texas nor the TWDB assumes any legal liability or responsibility or makes any guarantees or warranties as to the accuracy, completeness or suitability of the information for any particular purpose. The TWDB systematically revises or removes data discovered to be incorrect. If you find inaccurate information or have questions, please contact WDI-Support@twdb.texas.gov.

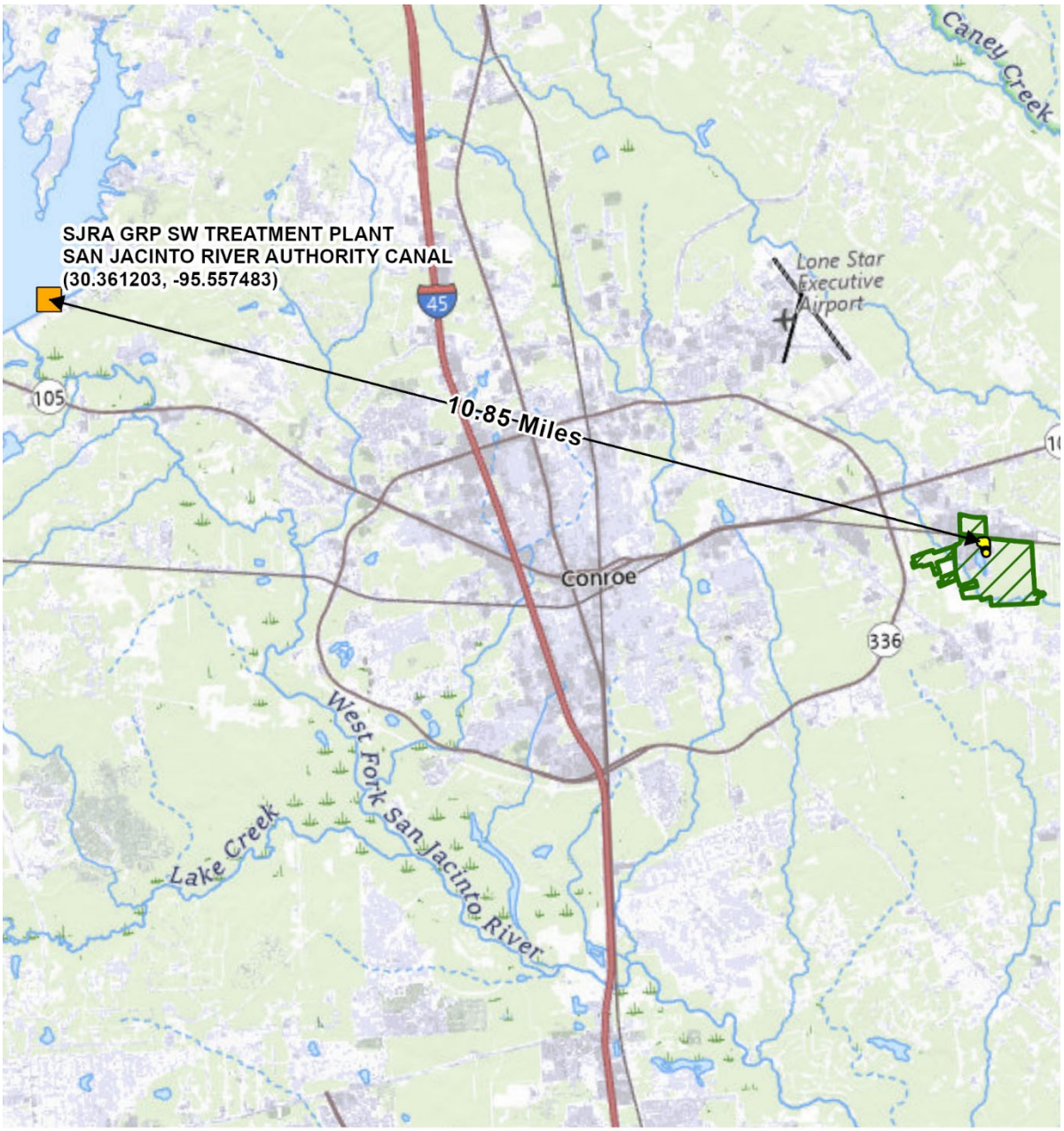
0 80 160 320 mi
0 125 250 500 km
1:9,244,649

FIGURE 4
SOIL MAP



Map Unit Symbol	Map Unit Name	Rating	Acres in AOI	Percent of AOI
BoyC	Boy loamy fine sand, 1 to 5 percent slopes	SM	0.5	0.1%
CoC	Conroe loamy fine sand, 0 to 5 percent slopes	SM	36.9	7.8%
HatA	Hatliff-Pluck-Kian complex, 0 to 1 percent slopes, frequently flooded	CL-ML	47.3	10.0%
SegB	Segno fine sandy loam, 1 to 3 percent slopes	ML	111.8	23.6%
SplB	Splendora fine sandy loam, 0 to 2 percent slopes	SM	173.2	36.5%
URLX	Urban land		100.4	21.2%
WesA	Westcott very fine sandy loam, 0 to 1 percent slopes	ML	4.0	0.8%
Totals for Area of Interest			**474.1**	**100%**

FIGURE 5
DRINKING WATER LOCATION – SURFACE WATER INTAKE



Legend

- Huntsman Property Boundary
- Hazardous Waste Units
- TCEQ Public Water System Surface Water Intakes
- Distance (Miles)

FIGURE 6
EARTHQUAKE PROBABILITY

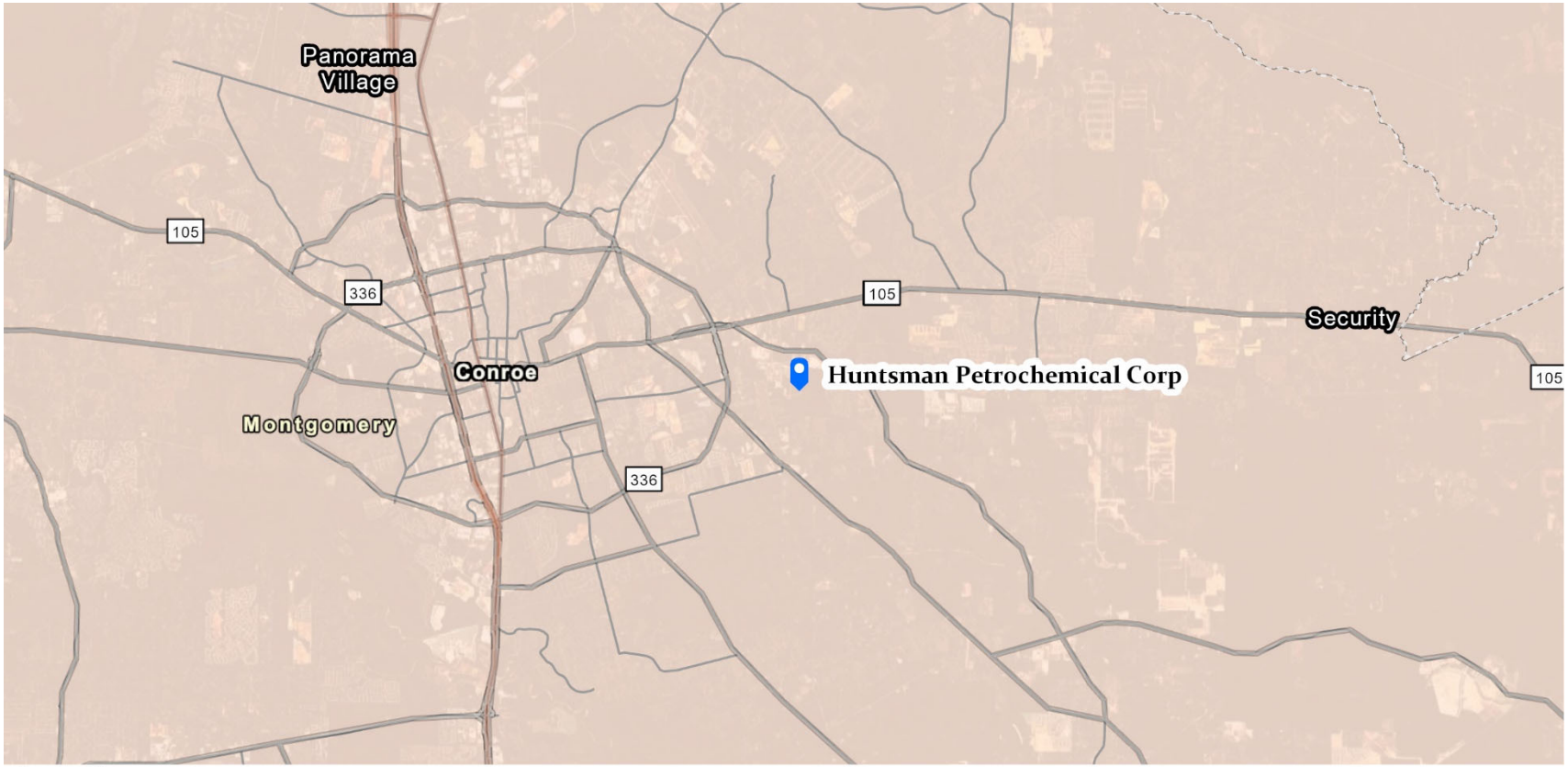


FIGURE 7
KARST MAP

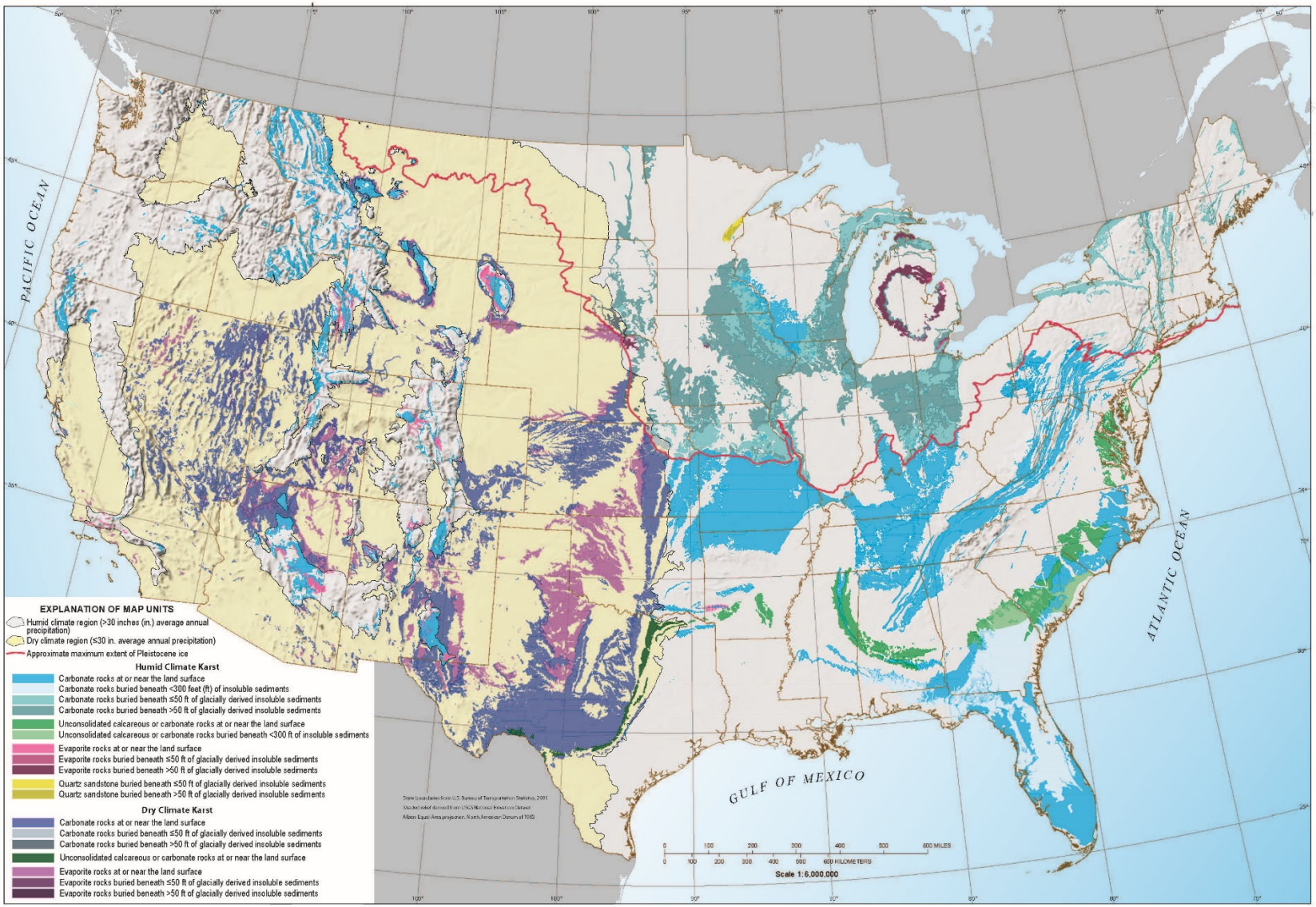


FIGURE 8
CRITICAL HABITATS

Critical Habitat - Polygon Features - Final

Critical Habitat - Polygon Features - Proposed

U.S. Fish and Wildlife Service – Critical Habitat Map Viewer (https://www.arcgis.com/apps/mapviewer)

Appendix II.F:
FLOODING
(FLOODING REPORT)

HUNTSMAN

Enriching lives through innovation

HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

FLOODING REPORT

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This report provides information on flooding required by 40 CFR § 270.14(b)(11)(iii).

2.0 FLOOD MAP

Maps and digital information from the Federal Emergency Management Agency (FEMA) were used to determine the location(s) of the 100-year flood plain. The following three flood maps are provided in Attachment A:

- Figure II.F.1 - FEMA Map 48339C0385G;
- Figure II.F.2 - FEMA Map 48339C0395G; and
- Figure II.F.3 - FEMA Flood Map.

FEMA flood maps 48339C0385G and 48339C0395G were updated in 2014. The digital data used to create Figure II.F.3 was also updated in 2014. The maps show that the active portions of the Conroe Plant are not located within a 100-year flood plain.

3.0 FLOOD IMPACTS

The Conroe Plant is not located within a 100-year flood plain. Therefore, this section is not applicable.

4.0 FLOOD PROTECTION DEVICES

The Conroe Plant is not located within a 100-year flood plain. Therefore, this section is not applicable.

5.0 PROCEDURES FOR FLOOD EVENTS

The Conroe Plant is not located within a 100-year flood plain. Therefore, this section is not applicable.

Attachment A:
FLOOD MAPS

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole–foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Texas State Plane central zone (FIPSZONE 4203). The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC–3, #9202
1315 East–West Highway
Silver Spring, MD 20910–3282

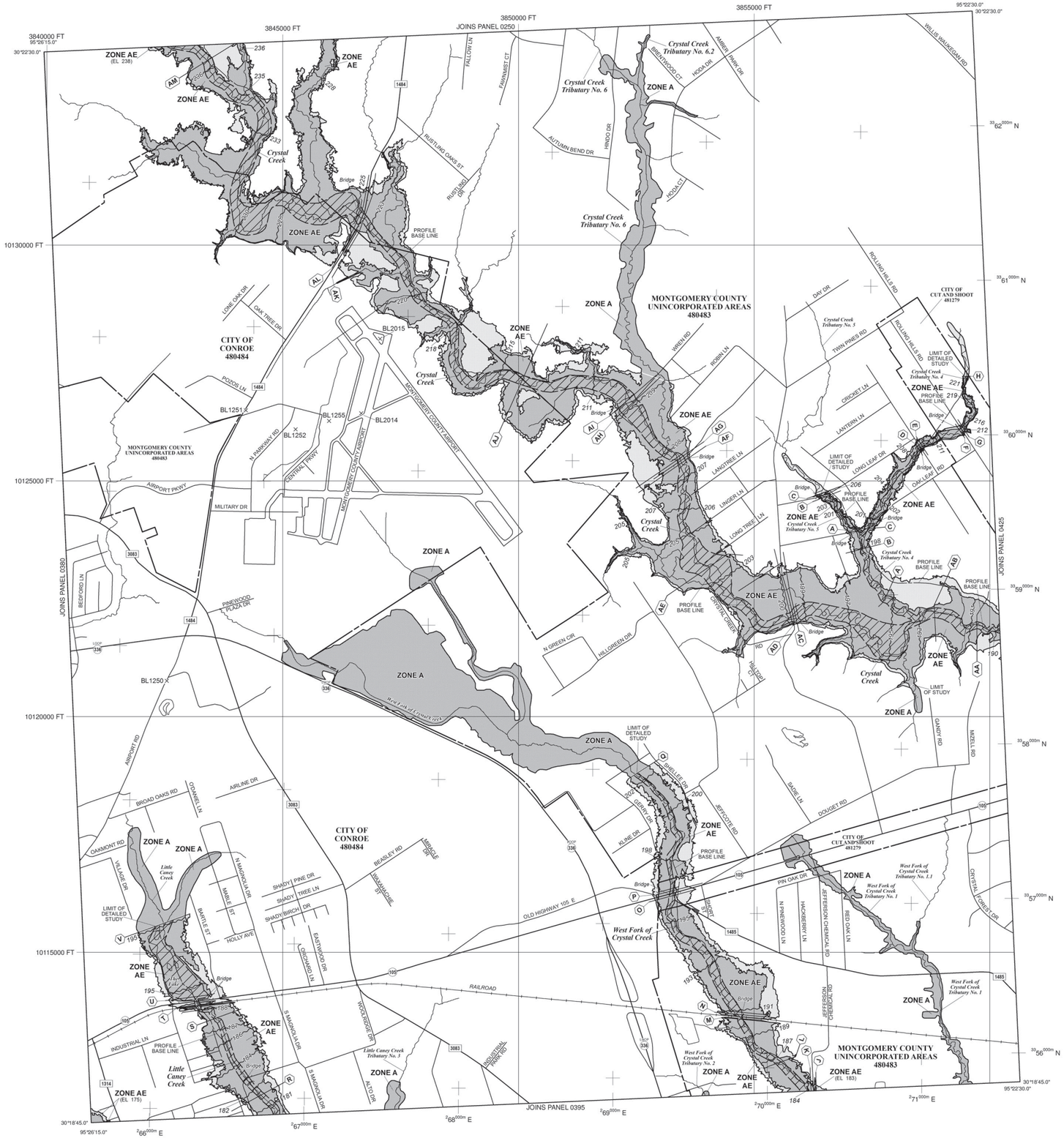
To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713–3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was provided in digital format by the Montgomery County Emergency Communications District, the Montgomery Central Appraisal District, the Texas General Land Office, the Houston-Galveston Area Council, the USGS, and by FEMA.
This map may reflect more detailed or up to date stream channel configurations than those shown on the previous FIRM. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations and improved topographic data. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable, in the FIS report. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de–annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the **FEMA Map Service Center** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the **FEMA Map Service Center** website or by calling the FEMA Map Information eXchange.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A No Base Flood Elevations determined.

ZONE AE Base Flood Elevations determined.

ZONE AH Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.

ZONE AO Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

513 — Base Flood Elevation line and value; elevation in feet*

(EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

A — A — Cross section line

23 — 23 — Transect line

97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)

4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 15

6000000 FT — 5000-foot grid values: Texas State Plane coordinate system, central zone (FIPSZONE 4203), Lambert Conformal Conic

DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)

M1.5 • — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 19, 1996
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
August 18, 2014 - to reflect updated topographic information, to update corporate limits,to change Base Flood Elevations and Special Flood Hazard Areas, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0385G

FIRM
FLOOD INSURANCE RATE MAP
MONTGOMERY COUNTY, TEXAS
AND INCORPORATED AREAS

Figure II.F.1

PANEL 385 OF 750
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONTGOMERY COUNTY	480483	0385	G
CONROE, CITY OF	480484	0385	G
CUT AND SHOOT, CITY OF	481279	0385	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
48339C0385G

MAP REVISED
AUGUST 18, 2014

Federal Emergency Management Agency

NOTES TO USERS

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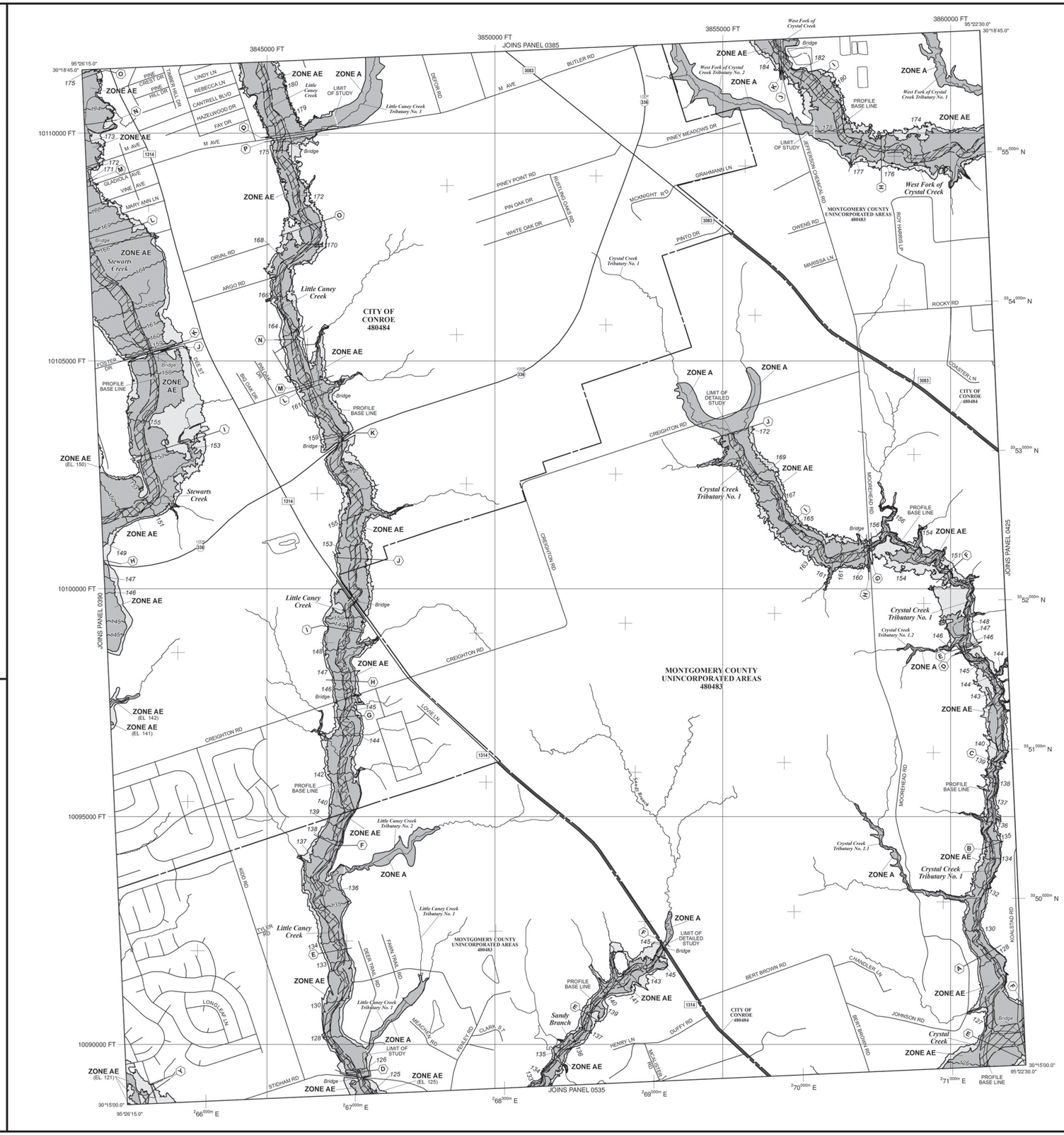

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500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0395G

FIRM
FLOOD INSURANCE RATE MAP
MONTGOMERY COUNTY, TEXAS
AND INCORPORATED AREAS

Figure II.F.2

PANEL 395 OF 750
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

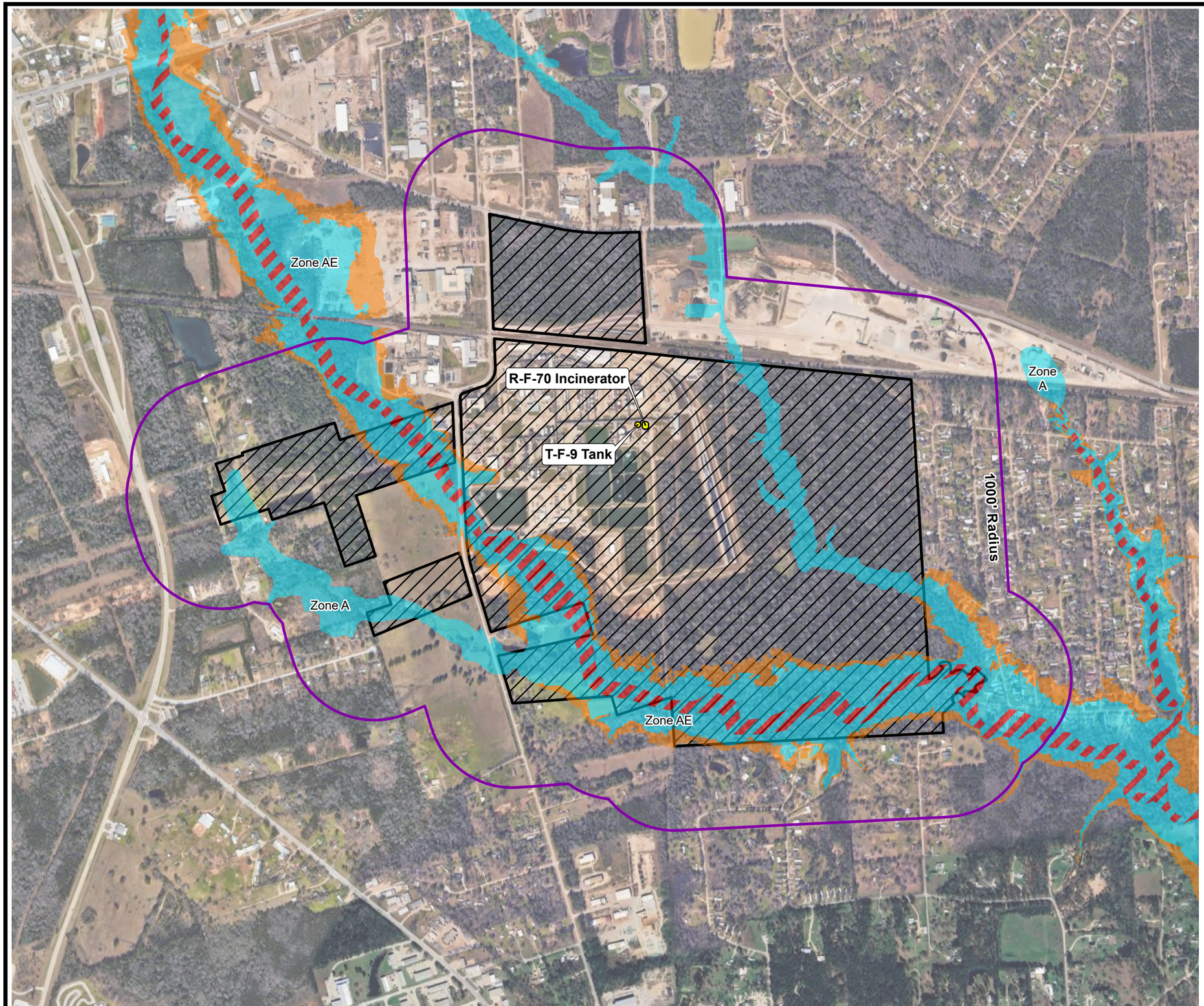
COMMUNITY	NUMBER	PANEL	SUFFIX
MONTGOMERY COUNTY	480483	0395	G
CONROE, CITY OF	480484	0395	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
48339C0395G

MAP REVISED
AUGUST 18, 2014

Federal Emergency Management Agency



Legend

- Huntsman Property Boundary
- 1000' Radius
- Hazardous Waste Units

Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard

Flood Hazard Zones Source:
FEMA National Flood Hazard Layer (NFHL). Data streamed through GIS Rest Service, July 2025

N

0 500 1,000 FEET

1" = 1,000 FEET
1:12,000

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

FEMA FLOOD MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE		AS NOTED	FILE NO.	II.F.3 FEMA Flood
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE II.F.3**	
DATE:	July 2025		*7/14/2025*		

Coterie ENVIRONMENTAL
1150 First Ave., Ste 501
King of Prussia, PA 19406

C:_AD\ACCDocs\temaplic\Projects\Project Files\Huntsman\Conroe\RCRA 2025\RCRA GIS.aprx

III. FACILITY MANAGEMENT

III. Facility Management

Provide all Part B responsive information in Appendix III. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

A. Compliance History and Applicant Experience

1. Provide listings of all solid waste management sites in Texas owned, operated, or controlled by the applicant as required by 30 TAC 305.50(a)(2).

2. For a new commercial hazardous waste management facility, provide a summary of the applicant's experience in hazardous waste management as required by 30 TAC 305.50(a)(12)(F).

B. Personnel Training Plan

Provide an outline of the facility training plan which includes all the information required by 40 CFR 264.16. Indicate which training will be repeated annually.

C. Security

Describe how the facility complies with the security requirements of 40 CFR 264.14 or submit a justification demonstrating the reasons for requesting a waiver of these requirements.

D. Inspection Schedule

Describe summary of inspection schedule and Table III.D in Appendix III.D in accordance with instructions below.

Provide an inspection schedule summary for the facility which reflects the requirements of 40 CFR 264.15(b), 264.33 and, where applicable, the specific requirements in 40 CFR 264.174, 264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, 264.347, 264.552, 264.574, 264.602, 264.1033(f), 264.1034, 264.1052, 264.1053(e), 264.1057, 264.1058, 264.1063, 264.1084, 264.1085, 264.1086, 264.1088, 264.1101(c)(4) and 270.14(b)(5). The inspection schedule should reflect the requirements described below. The schedule should encompass each type of hazardous waste management (HWM) unit (i.e., facility component) and its inspection requirements. For incorporation into a permit, complete Table III.D. - Inspection Schedule for all units to be permitted.

The owner or operator must inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or may lead to the release of hazardous waste constituents to the environment or which may pose a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

The owner or operator must develop and follow a written schedule for inspecting other basic elements such as monitoring equipment, safety and emergency equipment, security devices, the presence of liquids in leak detection systems, where installed, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

If the owner or operator of a facility which contains a waste pile wishes to pursue an exemption from the groundwater monitoring requirements for that waste management unit, the inspection schedule must include examination of the base for cracking,

deterioration, or other conditions that may result in leaks. The frequency of inspection must be based on the potential for the liner (base) to crack or otherwise deteriorate under the conditions of operation (e.g., waste type, rainfall, loading rates, and subsurface stability).

E. Contingency Plan (Not Applicable to Permits for Post-Closure Care Only)

If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this section. Provide a Contingency Plan which includes all the information required by 40 CFR Part 264 Subparts C and D, except for 40 CFR 264.56(d)(1) and 30 TAC 335.153(2). This plan must also include a drawing of the facility which shows the location of all emergency equipment. In addition, complete the following tables to summarize information expressed in more detail in the plan.

1. Arrangements with Local Authorities
Complete Table III.E.1. - Arrangements With Local Authorities to indicate arrangements (if made) with local authorities to familiarize local fire and police departments, local hospitals, equipment suppliers, and local and State emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes. Provide documentation of the attempts and any arrangements made with local authorities and emergency response teams.

2. Emergency Coordinator's List
For inclusion into a permit, list in Table III.E.2. - Emergency Coordinators the persons qualified to act as emergency coordinator. List the alternates in the order in which they will assume responsibility.

3. Emergency Equipment List
For inclusion into a permit, list in Table III.E.3. - Emergency Equipment all types of emergency equipment at the facility [such as fire-extinguishing systems, spill-control equipment, communications and alarm systems (internal and external), and decontamination equipment], if this equipment is required. Briefly outline the equipment capabilities.

4. Waiver from Preparedness and Prevention Requirements
If the owner or operator wishes to request a waiver from any of the preparedness and prevention requirements, he must submit a justification demonstrating the reasons for requesting the waiver, as discussed below.

F. Emergency Response Plan

For a new commercial hazardous waste management facility, the application shall contain evidence sufficient to demonstrate that emergency response capabilities are available or will be available before the facility first receives waste. An emergency response plan must be provided which satisfies the requirements of 30 TAC 305.50(a)(12)(C) and (D). This plan must show that the proposed facility has sufficient emergency response capabilities for managing a reasonable worst-case emergency condition associated with the operation of the facility. (For financial assurance requirements associated with the emergency response activities, please see Section

VIII.C.3.)

1. Practice Drills

   In addition to the contingency plan required under 40 Code of Federal Regulations Part 270.14(b)(7), provisions specifying procedures and timing of practice facility evacuation drills are required. Provide a description and a frequency for facility evacuation drills.

2. If a private corporation, municipality or county group will provide emergency response actions at the proposed facility, include a copy of the contract for this type of agreement with this application or state that documentation will be submitted before the facility accepts wastes.

3. Historical weather data for the area should be documented and submitted. Information regarding how emergency response operations may be affected by weather conditions should be included. (Local rainfall extremes, average rainfall amounts, average wind speeds and directions, potential for major weather events such as hurricanes, tornados, icy conditions, flash flooding etc., should be addressed.)

4. A definition of a worst-case emergency for the proposed facility should be described in the application. This worst-case emergency should take into account the possible complications involved with a facility emergency compounded by adverse weather conditions. It should also detail spills, fires, explosions, etc. This worst case scenario should be developed with the help of local governmental entities where possible. Emergency planning should include both unexpected emergencies and emergencies occurring as a result of a predictable event such as a flood or hurricane. For areas which are prone to hurricanes and flash flooding, the worst case which allows for a realistic situation should be used. For example, response teams should be well versed in reacting to events such as a 100-year flood.

5. A training program for personnel who will respond to these types of emergencies must be provided and must include the requirements described in OSHA Federal Register 1910 and EPA Federal Register 311, the Texas Hazard Communication Act, SARA Title III 302, 304, 311, 312, and 313. If emergency response actions are contracted out, the contracted employees must be properly trained and documentation of this training must be maintained on-site. All responders to emergencies at the proposed facility must be involved in training and drills at the facility in order to be thoroughly familiar with the facility and its operations.

6. The application must include a description and identification of first-responders (i.e. all pertinent facility personnel, local responders, and contractors). The duties of the facility employee who is to be the on-scene coordinator (OSC) must be described. Additional information must be provided detailing the OSC's role in the emergency response activities. This person must have the authority to commit the resources needed to carry out the Emergency Response Plan. His duties must be thoroughly described so that it is clear whether he will remain in control once the emergency response team arrives or whether he will relinquish control to another incident commander upon that person's arrival on the scene. Additionally, there must be a qualified OSC on-site or on call 24 hours a day. The name, address and phone numbers (home and work) of the OSC(s) must be listed in the Emergency Response Plan. Where more than one person is listed, one must be named as the primary OSC and others must be listed in the order

in which they will assume responsibility as alternates.

7. Local or regional emergency medical services or hospitals which have experience in hazardous materials training must be identified in the application. The names, addresses and phone numbers of the hospitals or medical centers should be listed here and updated as necessary. Additionally, maps showing the quickest routes to the medical services must be provided. A description of decontamination procedures for injured personnel prior to transport to medical services must also be provided. The decontamination and transport of injured people to appropriate medical centers must be included in the emergency evacuation training and drills.

8. A pre-disaster plan which includes training drills must be included in the application. This plan should include a schedule for staging evacuations of the facility and for emergency response training drills. At least two evacuations and two emergency response drills should occur annually. The plan should also include additional drills for responding to "predictable" emergencies such as floods and hurricanes. The plan must include the following (or must reference applicable sections of the Contingency Plan): a description of arrangements already in place with local authorities; emergency phone numbers; internal communication or alarm systems and proper alarm codes; a list of all types of emergency equipment at the facility, including a physical description and the capabilities of each item on the list, and the location of each item (a map would be useful here); a description of decontamination equipment; an evacuation plan including signals, evacuation routes and alternate evacuation routes; listing of pertinent first responder emergency phone numbers, and codes for other types of communication devices; and a description of actions that will be performed in the event that a "predictable" emergency occurs.

9. Describe the mechanism which will be used to notify first responders and appropriate local governmental entities that an emergency has occurred. Also describe the mechanism which will be used to notify all applicable governmental agencies when an incident occurs (i.e., TCEQ, Texas Parks and Wildlife, General Land Office, TCEQ Office of Air Quality, Texas Department of Health, and the Texas Railroad Commission).

10. Evidence must be provided that shows coordination with the Local Emergency Planning Committee (LEPC) and any local comprehensive emergency management plan. The applicants should be able to show compliance with SARA Title III.

11. Any medical response capabilities proposed for the facility property must be detailed in the application.

TABLE OF APPENDICES

APPENDIX	TITLE
III.A	Compliance History and Applicant Experience
III.B	Personnel Training Plan
III.C	Security
III.D	Inspection Schedule (Table III.D and Inspection Plan)
III.E	Contingency Plan (Tables III.E.1, III.E.2, and III.E.3 and Contingency Plan)
III.F	Emergency Response Plan (Not Applicable)

Appendix III.A:

COMPLIANCE HISTORY AND APPLICANT EXPERIENCE

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CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

COMPLIANCE HISTORY AND APPLICANT EXPERIENCE

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

The Conroe Plant possesses significant experience operating the R-F-70 Incinerator and the T-F-9 Tank for which this Part B permit renewal application is being submitted. The following other facility is owned and/or operated within the State of Texas by Huntsman or a parent company:

- Huntsman Petrochemical Port Arthur Plant (CN603603093, RN103033189).

2.0 COMPLIANCE HISTORIES

Compliance history information for the Conroe Plant is presented in Table 1.

TABLE 1
COMPLIANCE HISTORY

RATING	CLASSIFICATION	DATE RATE
0.37	SATISFACTORY	09/01/2024

Huntsman endeavors to operate all its facilities in continuous compliance with the variety of complex solid waste regulations. Furthermore, at the time of submittal of this Part B permit application, there were no instances of indebtedness (*e.g.*, outstanding penalty payments) of any of these facilities to the State of Texas.

Appendix III.B:
PERSONNEL TRAINING PLAN

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INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

PERSONNEL TRAINING PLAN

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This RCRA training plan constitutes a written description of the type and amount of training conducted for Huntsman personnel in accordance with 40 CFR § 264.16. In addition to this training, incinerator control room operators are required to maintain certification to comply with HWC NESHAP requirements. A separate training program for HWC NESHAP is implemented at the Conroe Plant. This training program includes initial training for all personnel that could reasonably be expected to directly affect emissions from the incinerator. Initial training and annual refresher training are required for all HWC NESHAP-certified incinerator control room operators. Information on the HWC NESHAP training program is provided in the HWC NESHAP Operator Training and Certification Program document.

2.0 OUTLINE OF PERSONNEL TRAINING PROGRAM

Huntsman has established a personnel training program designed to provide employees with the information necessary to perform their job function in a safe and effective manner. The training program will be updated and revised as necessary to comply with the established guidelines of 40 CFR § 264.16.

The training program is designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems. 40 CFR § 264.16 specifies the following training topics that are applicable to the tank and incinerator:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;
- Communications or alarm systems;
- Response to fires or explosions;
- Response to groundwater contamination incidents; and
- Shutdown of operations.

3.0 JOB TITLE/JOB DESCRIPTION

40 CFR §264.16(d) requires Huntsman to maintain the job title for each position at the facility related to hazardous waste management and the name of the employee filling each job. Job titles, job descriptions, and names of those employees designated as these positions are maintained in the Conroe Plant records.

4.0 TRAINING CONTENT AND FREQUENCY

RCRA training is provided to employees via a Computer Based Training (CBT) system, which is accessible to all employees via the in-plant computer network. The CBT RCRA module presents a broad assortment of RCRA related topics through a sequence of screens that include photographs with written and audible narratives, followed by screens with related questions that must be answered by the employee before he or she advances to the next topic. The content of the training module and associated test is periodically modified to account for regulatory and facility-specific changes.

Table 1 summarizes the content of the RCRA training. In accordance with 40 CFR § 264.16(a)(3), only topics relevant to the proper performance of the job are included in the training of each job category.

TABLE 1
TRAINING TOPICS

TOPIC	DESCRIPTION
Contingency plan	Review of emergency response procedures
Emergency equipment	Review of fire extinguisher, fixed fire suppression systems
Communication and alarm systems	Review of emergency alarm systems, emergency radio and telephone systems
Response to fire and explosion	Review of emergency procedures
Response to groundwater contamination incidents	Review of procedures for containing, controlling, and mitigating spills
Monitoring equipment use and inspection	Review of continuous emissions monitoring systems and process monitors

In addition to RCRA training, extensive emergency response training is provided to the Conroe Plant Response Team. The Response Team, which is comprised of employees from all areas of the plant, receives more extensive emergency response training and is equipped to respond to both fires and hazardous material releases, including releases of hazardous waste.

All new employees, and any employee that transfers to a job position requiring RCRA training, must successfully complete the CBT RCRA module within six months after the effective date of their assignment to an initial or different job position. Correctly answering a minimum of 80 percent of the module questions constitutes successful completion of the CBT RCRA module.

Employees receive an annual review of the initial training in accordance with 40 CFR § 264.16(a). Annual refresher training follows the same basic content as the initial training.

5.0 TRAINING DIRECTOR

The CBT RCRA module was developed and reviewed by facility personnel in Huntsman's Environmental Department and by the Training Supervisor, who oversees the training program. The qualifications of these personnel include knowledge of federal, state, and local environmental regulations pertinent to hazardous waste management activities that occur at the Conroe Plant.

6.0 TRAINING RECORDS

The following training records are maintained at the Conroe Plant:

- Job title for each position at the facility related to hazardous waste management;
- Written job description including the requisite skill, education, or other qualifications and duties of employees assigned to each position;
- Name of the employee filling each job;
- Written description of the type and amount of both introductory and continuing training required for each position; and
- Records that document the training or job experience given to and completed by facility personnel.

Training records on current personnel will be kept until closure of the tank and incinerator. Training records on former employees are kept at least three years from the date the employee last worked at the facility.

Appendix III.C:
SECURITY

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INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

SECURITY

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

The security provisions established by Huntsman prevent unknowing entry and minimize the possibility for unauthorized entry of persons or livestock onto the active hazardous waste management area. The provisions have several features, in addition to the general security provisions, which contribute to the safety and security of the hazardous waste management units.

2.0 ENTRY CONTROL

All Huntsman employees are provided with security identification cards. All visitors must obtain both a vehicle pass and a visitor's badge to gain access to the facility. All personnel entering the facility through the manned gates must show their identification badge to the guard on duty to gain access to the facility. Facility personnel must escort all visitors while they are on the premises.

Huntsman personnel control access to the hazardous waste management units, and only authorized personnel are allowed to enter the area. All visitors or contractors must check in at the Control Room prior to entering the area.

3.0 PERIMETER CONTROL

The active portion of the plant is surrounded by a six-foot hurricane fence. This perimeter fence is topped with two strands of barbed wire to minimize unauthorized entry. The perimeter of the inactive, or wooded, portion of the property is secured with chain link fencing. The perimeter fence of the active portion of the facility is patrolled periodically by security personnel.

Eight gates control entry to and/or departure from the Conroe Plant. All gates remain closed and locked when not in use. The main entrance gate is manned 24 hours per day, seven days per week. The south gate, or contractor's gate, is manned when open during normal business hours or during other times as deemed necessary.

Crash gates equipped with alarms are located on the north side of the facility and in the southwest corner in the contractor construction area. These gates provide a means of egress only in the event of an emergency. All alarm activations are investigated immediately by security personnel.

4.0 SURVEILLANCE

Security at the Conroe Plant is maintained 24 hours per day, seven days per week by staff who monitor entry and exit from the plant and provide security measures within the plant premises. Security cameras are located at strategic areas within the plant to assist guards in constant surveillance of the plant. The hazardous waste management units are manned and patrolled on a 24-hour basis by Huntsman personnel.

A clear, lighted path is maintained inside the perimeter barrier to facilitate patrol by vehicle. Ample lighting is provided throughout the site.

Security, operations, and safety personnel are equipped with handheld, two-way radios to report abnormal conditions immediately.

5.0 WARNING SIGNS

Warning signs that have the legend “Danger-Unauthorized Personnel Keep Out” are located at strategic locations. These signs warn that entry can be dangerous and that only authorized personnel are allowed to enter. The signs are legible from a distance of over 25 feet.

Appendix III.D:
INSPECTION SCHEDULE
(TABLE III.D AND INSPECTION PLAN)

Table III.D- Inspection Schedule

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
T-F-9 Tank: Tank exterior	Visible leaks, external corrosion, discoloration, cracks, buckles, bulges	Daily
T-F-9 Tank: Secondary containment area	Visible cracks, damage to coating material, evidence of leaks, staining, oil sheen on collected stormwater	Daily
T-F-9 Tank: Area immediately surrounding the secondary containment	Wet spots, evidence of leaks, dead vegetation (from a tank leak)	Daily
T-F-9 Tank: Base or foundation/coating	Visible cracks, damage to coating material, evidence of leaks, staining	Daily
T-F-9 Tank: Sump area	Visible cracks, evidence of leaks, staining	Daily
T-F-9 Tank: Piping, valves, fittings	Visible leaks, external corrosion, or evidence of staining in the area	Daily
T-F-9 Tank: Waste feed/recycle pumps	Visible leaks	Daily
T-F-9 Tank: Overfill control instrumentation	Instrument reading out of range, alarms	Daily
T-F-9 Tank: Vent system joints and connections	Visible leaks, external corrosion, or evidence of staining in the area	Annually
T-F-9 Tank: Tank roof	Visible cracks, holes, or gaps in the roof or between roof and wall	Annually
T-F-9 Tank: Nozzles and closure devices	Visibly broken, cracked or damaged seals or gaskets	Annually
T-F-9 Tank: Hatches, access covers, caps, closure devices	Visibly broken or missing, gaps in seals	Annually
T-F-9 Tank: Vent scrubber	Operations, visible leaks, or evidence of external corrosion	Daily

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
Tank truck unloading station: Curbed area and sump; pump and transfer lines	Visible evidence of released material or leaks	Daily when in use for transfers
R-F-70 Incinerator: Combustion chamber, evaporative cooler, baghouse	Visible evidence of corrosion, leaks, spills, fugitive emissions, signs of tampering	Daily
R-F-70 Incinerator: Connecting piping and piping components	Visible evidence of leaks, corrosion, fugitive emissions	Daily
R-F-70 Incinerator: Feed pump pressure	Abnormally high or low pressure readings	Daily
Safety and emergency equipment: Fire hoses/nozzles	Visible evidence of deterioration, damage to equipment, clogging	Annually
Safety and emergency equipment: Fire monitors	Deterioration, clogging	Monthly
Safety and emergency equipment: Fire truck	Supplies low or out of stock; truck and/or response devices inoperable	Monthly/after each use
Safety and emergency equipment: Fire extinguishers	Indication of low charge, evidence of leaking seals, improper type	Monthly/after each use
Safety and emergency equipment: Fire/emergency alarm system – plant siren and fire phone	Alarm not working, not functioning when tested	Weekly
Safety and emergency equipment: Emergency shower and eyewash	Evidence of leaking; insufficient water flow, nozzles plugged	Weekly
Safety and emergency equipment: Self-contained breathing apparatus (SCBA)	Insufficient quantity of air in SCBA tank, leakage or tears in the air delivery	Monthly/after each use
Safety and emergency equipment: Hazardous materials response trailer contents	Low supply or material out of stock	Each use
Security devices: Two-way radios	Transmitter or receiver not functioning, non-functioning battery	Upon failure

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
Security devices: Warning signs	Difficult to read, obstruction	Monthly
Security devices: Facility fence, gates, and locks	Visible evidence of deterioration, gaps under fence, inoperable locks	Monthly

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INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

INSPECTION PLAN

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

40 CFR § 264.15(a) requires Huntsman to inspect the hazardous waste operations for malfunctions and deterioration, operator errors, and discharges which may be causing, or may lead to, release of hazardous waste constituents to the environment or a threat to human health. These inspections must be conducted often enough to identify problems in time to correct them before they harm human health or the environment. This RCRA inspection plan describes the inspections for the tank and incinerator, as well as safety, emergency, and security equipment.

2.0 TANK INSPECTIONS

The T-F-9 Tank and associated equipment are inspected on a daily and annual basis to ensure they are in proper functional condition. The tank truck unloading station is inspected daily when in use. The inspections are performed by UPA operators and are documented on a daily operator inspection form. The specific inspections for the tank are listed in Table III.D in Section III of the Part B Permit Application.

Huntsman does not operate cathodic protection systems on the T-F-9 Tank, therefore the requirements of 40 CFR § 264.195(g) are not applicable.

3.0 INCINERATOR INSPECTIONS

There are two types of inspections performed for the R-F-70 Incinerator. These include:

- General visual inspections; and
- Inspections pertaining to monitoring and operating the incinerator.

Pursuant to 40 CFR §§ 264.340 and 270.19(e), detailed information on inspections for incinerator monitoring equipment is no longer required in the Part B permit application. Specifically, the R-F-70 Incinerator is no longer subject to the performance standards and operating limits of Subpart O, such as the requirement for a waste feed cutoff system and associated alarms. Requirements for an automatic waste feed cutoff (AWFCO) system are included in the HWC NESHAP. This plan does not address any inspections of the monitoring and AWFCO systems for the incinerator.

The R-F-70 Incinerator and the associated equipment are visually inspected daily for fugitive emissions, leaks, spills, structural deterioration, and signs of tampering. The inspections are performed by Utility and Pollution Abatement (UPA) operators who are responsible for operation of the R-F-70 incinerator and are documented on a daily operator inspection form. The specific inspections for the incinerator are listed in Table III.D in Section III of the Part B Permit Application.

4.0 Safety, Emergency, and Security Equipment Inspections

Safety and emergency equipment is strategically located across the Conroe Plant. Many of these locations are in proximity to the hazardous waste management units. The equipment in these areas is inspected periodically in accordance with 40 CFR § 264.15(b). The inspections are documented on inspection forms. The specific inspections are listed in Table III.D in Section III of the Part B Permit Application.

5.0 Corrective Actions

Huntsman will promptly remedy any defects/malfunctions found by routine inspections. The corrective action will be dependent on the problem, but, if a hazard is imminent or has already occurred, remedial action will be taken immediately.

6.0 Records

A copy of the most recent inspection schedule will be maintained onsite and will be updated as necessary to comply with requirements for preventing, detecting, or responding to environmental or human health hazards. For each facility area or piece of equipment, this schedule lists the specific item to be inspected, the possible malfunction or deterioration associated with the area or equipment, and the frequency of inspection.

As required by 40 CFR § 264.15(d), routine inspection logs will be kept for a minimum period of three years in the UPA Team Lead Office.

Appendix III.E:

CONTINGENCY PLAN

(TABLES III.E.1, III.E.2, AND III.E.3 AND CONTINGENCY PLAN)

Table III.E.1- Arrangements with Local Authorities

Police

Address	Montgomery County Sheriff's Department 1 Criminal Justice Drive, Conroe Texas 77301
Person Contacted	Dispatch Office
Phone Number	936-760-5800
Agreed Arrangements	Assists with community evacuations during emergency response events and responds to law enforcement and security matters.

Fire

Address	Caney Creek Fire Department 16723 FM-2090, Conroe, Texas 77306
Person Contacted	Chief
Phone Number	936-231-3527
Agreed Arrangements	Back-up fire fighting capabilities to plant response team. Familiarized with the layout of the facility, entrance to the facility, possible evacuation routes, properties of hazardous materials handled at the facility, and associated hazards to personnel working at the facility.

Hospital

Address	HCA Conroe 504 Medical Center Blvd., Texas 77304
Person Contacted	Main Office
Phone Number	936-539-1111
Agreed Arrangements	Provides medical assistance as needed.

Other

Organization Name	
Address	
Person Contacted	
Phone Number	
Agreed Arrangements	

Table III.E.2 - Emergency Coordinators (Primary)

Name	Home Address	Office Phone(s) and/or Pager	Home/Cell Phone(s)
Walter Greer	1992 S Pine Lake Rd Montgomery, TX 77316	936-760-6204	936-537-3815
Holly Currie	10963 Magnolia Dr Conroe, TX 77303	936-760-6270	936-405-3691

Alternate Emergency Coordinators

Name	Home Address	Office Phone(s) and/or Pager	Home/Cell Phone(s)
C. J. Redd	2 W Misty Morning Trace Spring, TX 77381	936-760-6241	860-373-6923
Jessica Verdinez	4306 Cypresswood Dr Spring, TX 78388	936-760-6277	713-530-8295

Table III.E.3- Emergency Equipment

Equipment	Location	Physical Description	Capability
Fire monitors/hoses/nozzles	T-F-9 Tank and R-F-70 Incinerator area	Carbon steel pipe, flexible hoses, nozzles, 500 gallons per minute at 100 pounds per square inch gauge	3,000 gallons per minute total output for firefighting
Fire truck	Plant fire station	Fire truck with onboard tank, hoses, nozzles, and pump	Supplemental firefighting capability
Fire extinguishers	T-F-9 Tank and R-F-70 Incinerator area	Dry powder extinguisher	20-pound nominal capacity per extinguisher
Fire/emergency alarm system – plant siren and fire phone	Throughout plant	Electrical, audible sound system with siren	Audible emergency notifications throughout plant
Emergency lightning system	Control Building	Battery supplied light source	30-minute escape lightning
Emergency shower and eyewash	T-F-9 Tank and R-F-70 Incinerator area	Stationary eye wash/shower with quick-on levers	Continuous water delivery
Self-contained breathing apparatus (SCBA)	R-F-70 Incinerator control room	Air tank with associated air regulator, supply hoses, and face mask	30-minute breathing air supply
Hazardous materials response trailer contents	Contained in trailer located at the plant fire station	Various spill management supplies including absorbent, shovel, gloves/PPE, and decontamination equipment.	Mobile unit capable of managing small spills/leaks from pumps, piping, or tanks

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CONTINGENCY PLAN

DECEMBER 2025

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1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE. In addition, Huntsman operates two permit-exempt central accumulation (less than 90-day) hazardous waste container storage units and several satellite accumulation units that are subject to the requirements of 40 CFR Part 262 and 30 TAC Chapter 335 Subchapter C.

This RCRA contingency plan describes emergency preparedness measures taken to prevent or minimize the possibility of fire, explosion, or a sudden or non-sudden release of hazardous waste or hazardous waste constituents to air and/or soil from occurring at Huntsman's hazardous waste management units, which threaten human health or the environment. This plan also applies to the hazardous waste central accumulation units and satellite accumulation units located throughout the facility. This plan is designed to satisfy the requirements of 40 CFR Part 262 Subpart M and Part 264 Subpart D and 30 TAC §§ 335.61 and 152(a)(3).

This plan is to be activated in the event of fire, explosion, or a sudden or non-sudden release of hazardous waste or hazardous waste constituents that substantially threatens human health or the environment. Such emergencies would typically require discontinuation of tank and/or incinerator operations. Small releases that do not substantially threaten human health or the environment (*e.g.*, equipment leaks typically handled within Huntsman's leak detection and repair program) do not activate this RCRA contingency plan.

The remaining sections of this plan provide the following information:

- Section 2.0 provides an overview of the facility;
- Section 3.0 provides information on the hazardous waste operations;
- Section 4.0 discusses implementation of this plan;
- Section 5.0 describes the emergency response organization;
- Section 6.0 describes the emergency response procedures;
- Section 7.0 describes the emergency equipment;
- Section 8.0 discusses arrangements with local authorities;
- Section 9.0 presents the evacuation plan;

- Section 10.0 discusses notifications;
- Section 11.0 discusses location and distribution of this plan;
- Section 12.0 addresses amendments to the plan;
- Attachment A contains a plot plan showing the locations of hazardous waste management units; and
- Attachment B contains the evacuation routes figure.

2.0 FACILITY OVERVIEW

The Conroe Plant produces a wide variety of products, such as organic amines, polyols, and ethylene/propylene carbonates. Production takes place in the B, C, D, and G process areas. The E area is dedicated to storage and shipping facilities. Plant utilities, including wastewater treatment systems, are located in the F area.

The street address and mailing address of the Conroe Plant is:

Huntsman Petrochemical LLC – Conroe Plant
5451 Jefferson Chemical Road
Conroe, Texas 77301

3.0 HAZARDOUS WASTE OPERATIONS

The Conroe Plant manages hazardous waste in two permitted units, the T-F-9 Tank and the R-F-70 Incinerator. Several liquid hazardous waste streams are managed in the tank and incinerator. Huntsman also manages containerized wastes in two permit-exempt central accumulation units and several satellite accumulation units.

The hazardous waste management units are designed, constructed, maintained, and operated to prevent or minimize hazards associated with managing hazardous waste. Specific information regarding operation and maintenance are maintained as follows:

- Huntsman's standard operating procedures regarding operating and maintaining the tank and incinerator that include provisions to prevent or minimize hazards;
- Huntsman's Hazardous Waste Operations and Emergency Response (HAZWOPER) training requirement that specifies measures taken to ensure the tank and incinerator operators are able to perform so as to prevent or minimize hazards in the event of an emergency; and
- Huntsman's RCRA inspection plan that specifies inspections intended to prevent or minimize hazards.

3.1 T-F-9 TANK

The T-F-9 Tank is a 30,000-gallon, carbon steel, non-pressurized vertical cylindrical tank that was constructed in 1988. The tank is 16 feet in diameter, 22 feet of tangential height, and includes a bulbed bottom and slightly sloped steel top cover. The tank is equipped with four 16-inch wide interior wall baffles, a centered vertical rotating agitator, a fixed roof, two manways, and numerous flanges to accommodate process connections, venting, level indication and control instrumentation. The tank is also equipped with a vent scrubber for air emissions. The tank is contained within a concrete dike. The location of the T-F-9 Tank is shown on the map in Attachment A.

3.2 R-F-70 INCINERATOR

The R-F-70 Incinerator was specially designed for Huntsman by Von Roll, Inc. It was installed at the Conroe Plant in 2003 through 2004. The unit has a maximum design capacity of 38.9 million British thermal units per hour (MMBtu/hr). The incinerator was designed for the treatment of wastes in a staged combustion process to limit nitrogen oxide (NO_x) emissions. The combustion chamber is followed by a selective non-catalytic reduction chamber, an evaporative cooler, a fabric filter baghouse, an induced draft (ID) fan, and an exhaust stack. The location of the R-F-70 Incinerator is shown on the map in Attachment A.

3.3 Central Accumulation Container Storage Units

Huntsman also operates two central accumulation container storage units. The locations of the central accumulation units are shown on the map in Attachment A.

3.4 Satellite Accumulation Units

Huntsman also operates satellite accumulation units at several locations in the plant. The locations are shown on the map in Attachment A.

3.5 Hazardous Waste Streams

Several liquid hazardous waste streams are managed in the T-F-9 Tank and the R-F-70 Incinerator. These include spent methanol waste, spent isopropanol (IPA) waste, amine mix waste, and morpholine bottoms (MB) lights waste.

Spent methanol waste (Texas Commission on Environmental Quality (TCEQ) No. 0001203H) carries the 40 CFR Part 261 hazardous waste numbers of D001 (ignitability), D002 (corrosivity), D018 (benzene), F003 (spent non-halogenated solvent), and U154 (methanol). This waste is generated in the specialty amines unit (SAU) processing areas. This waste is transferred to T-F-9 Tank from the production process. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

Spent IPA waste (TCEQ No. 0013203H) carries the 40 CFR Part 261 hazardous waste number of D001 (ignitability). This waste is generated in the amines and polyurethane polyols processing areas. This waste is transferred to the T-F-9 Tank from the production processes. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

Amine mix waste (TCEQ No. 0123207H) carries the 40 CFR Part 261 hazardous waste numbers of D001 (ignitability), D002 (corrosivity), and D018 (benzene). This material is generated in the SAU processing areas. This material is typically sold as a product. When the material does not meet product specifications and is classified as a hazardous waste, it is transferred to T-F-9 Tank from the production process. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

MB lights waste (TCEQ No. 0165203H) carries the 40 CFR Part 261 hazardous waste number of D001 (ignitability). This material is generated in the SAU processing areas. This waste is transferred to the T-F-9 Tank from the production processes. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

Various containerized wastes are stored in the two permit-exempt central accumulation units. These wastes may include aqueous and organic liquid wastes, contaminated soils, solids, and semisolids, packaged laboratory wastes, *etc*. These wastes are transferred directly from a process or from the satellite accumulation units.

4.0 IMPLEMENTATION OF THE CONTINGENCY PLAN

As required by 40 CFR §§ 262.260(b) and 264.51(b) and 30 TAC §§ 335.61 and 152(a)(3), the provisions of this plan will be carried out immediately whenever there is an emergency situation in the T-F-9 Tank area, the R-F-70 Incinerator area, central accumulation units, or satellite accumulation units, such as a fire, explosion, or release of hazardous waste or hazardous waste constituents, that could threaten human health or the environment. The decision of whether to implement this plan shall rest on the acting Incident Commander (emergency coordinator). Small releases that do not substantially threaten human health or the environment (*e.g.*, equipment leaks typically handled within Huntsman's leak detection and repair program) do not activate this RCRA contingency plan.

5.0 EMERGENCY RESPONSE ORGANIZATION

Huntsman has implemented a plant-wide Emergency Action Plan (EAP). In this organization, the responsible person for responding to any emergency is the Incident Commander. This satisfies the RCRA regulatory requirement for an emergency coordinator. The Incident Commander is thoroughly familiar with all aspects of the RCRA contingency plan, all operations and activities at the Conroe Plant, the location and characteristics of waste handled, the location of all records, and the layout of the Conroe Plant. The list of Incident Commanders is provided in Table III.E.2 in Section III of the Part B Permit Application.

The Incident Commander is responsible for ensuring that the RCRA contingency plan is implemented during emergencies and will contact the appropriate personnel to oversee the Emergency Response Team. The Incident Commander has the authority to commit the resources necessary to effectively manage the emergency situation. The Emergency Response Team is comprised of employees from all areas of the plant. The Emergency Response Team is available for response twenty-four hours per day.

6.0 EMERGENCY RESPONSE PROCEDURES

The actions that will be conducted in case of an emergency situation in the identified hazardous waste management units (T-F-9 Tank, R-F-70 Incinerator, central accumulation units, or satellite accumulation units) are detailed herein. Emergency procedures will be conducted in accordance with 40 CFR §§ 262.265 and 264.56 and 30 TAC §§ 335.61 and 152(a)(3).

6.1 INTERNAL NOTIFICATION

When there is an imminent or actual emergency situation, the Incident Commander (or his/her designee) will immediately activate internal facility alarms or communication systems where applicable, to notify all facility personnel. The Incident Commander will also determine if facility personnel should be evacuated. If so determined, evacuation instructions will be communicated by plant radio system and the plant emergency alarm system.

6.2 IDENTIFICATION OF HAZARDOUS MATERIALS

Whenever there is a release, fire, or explosion that could threaten human health or the environment in an identified hazardous waste management unit, the Incident Commander will be responsible for ensuring that the character, exact source, amount, and extent of any released material is immediately identified. This task is accomplished by observation, review of facility records, review of facility manifests, or chemical analysis.

6.3 ASSESSMENT

Whenever there is a release, fire, explosion, or a need for evacuation in an identified hazardous waste management unit, the Incident Commander will immediately assess possible hazards to human health and the environment that may result from the release, fire, or explosion. This assessment considers both direct and indirect effects of the release, fire, or explosion, including consideration of any effects of any toxic, irritating, or asphyxiating gases that are generated and the effects of any hazardous surface water runoffs from water or chemical agents used to control fire and heat induced explosions.

6.4 EXTERNAL NOTIFICATIONS

In accordance with 40 CFR §§ 262.265(d) and 264.56(d) and 30 TAC §§ 335.61 and 153, if the Incident Commander determines that an identified hazardous waste management unit has had a release, fire, and/or explosion that could threaten human health or the environment outside the facility, he/she or his/her designee will immediately notify the appropriate authorities. These notifications are described in Section 10.0.

6.5 Control Procedures

The Incident Commander will take action during an emergency situation to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other areas of the facility. These actions may include stopping processes or collecting and containing released waste or other hazardous materials (*e.g.*, fuel gas).

6.6 Prevention of Recurrence or Spread of Fires, Explosions, or Releases

Whenever there is a release, fire, or explosion in an identified hazardous waste management unit, the Incident Commander will take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other areas of the facility and will monitor for appropriate equipment that may have been affected by the emergency situation.

6.7 Interruption of Operations

If an identified hazardous waste management unit stops operations in response to a fire, explosion, or release, the Incident Commander will ensure monitoring for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment.

6.8 Storage, Treatment, and Disposal of Released Material

Immediately after an emergency in an identified hazardous waste management unit, the Incident Commander will provide for the proper management of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion. The Incident Commander will contact the Environmental, Health, and Safety (EH&S) Department. The waste will be temporarily stored in one of the central accumulation units until it can be properly disposed of offsite. Routine operating procedures at these facilities will prevent simultaneous storage of any incompatible wastes.

6.9 Post-Emergency Management

After an incident, the Incident Commander will direct cleanup and restoration activities. These will include, but are not limited to, treating, storing, and disposing of recovered waste, contaminated soil, surface water, or any other material that results from a release, fire, or explosion at the facility.

The Incident Commander will also ensure that, in the hazardous waste management unit:

1. No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.
2. All emergency equipment is cleaned and fit for its intended use before operations at the facility are resumed.

7.0 EMERGENCY EQUIPMENT

Emergency equipment is strategically located throughout the Conroe Plant. The emergency equipment provided at the facility satisfies the requirements of 40 CFR §§ 262.252, 262.261, 264.32, and 264.52. All emergency response equipment is appropriately maintained. Inspections are performed to ensure the equipment is in good working order. The RCRA inspection plan presents the nature and frequency of these inspections.

All emergency equipment used in a response that results in activation of this RCRA contingency plan will be cleaned or otherwise made fit for use before the affected hazardous waste management unit(s) operations are resumed.

Emergency equipment includes communication systems, centralized emergency equipment, plant-wide fire water supply systems, and local area emergency equipment. Huntsman has onsite emergency service equipment including a fire truck and firefighting equipment. Table 1 lists hazardous waste management facilities emergency equipment and their location.

TABLE 1
EMERGENCY EQUIPMENT

EQUIPMENT	LOCATION	DESCRIPTION
Fire monitors/ hoses/nozzles	T-F-9 Tank and R-F-70 Incinerator area, central accumulation areas, and satellite accumulation areas	Carbon steel pipe, flexible hoses, nozzles, 500 gallons per minute at 100 pounds per square inch gauge, 3,000 gallons per minute total output for firefighting
Fire truck	Plant fire station	Fire truck with onboard tank, hoses, nozzles, and pump for supplemental firefighting capability
Fire extinguishers	T-F-9 Tank and R-F-70 Incinerator area, central accumulation areas, and satellite accumulation areas	Dry powder extinguishers, 20-pound nominal capacity per extinguisher
Fire/emergency alarm system - plant siren and fire phone	Throughout plant	Electrical, audible sound system with siren for audible emergency notifications throughout plant
Emergency lighting system	Control Building	Battery supplied light source for 30-minute escape lighting
Emergency shower/eyewash	T-F-9 Tank and R-F-70 Incinerator area, central accumulation areas, and satellite accumulation areas	Stationary eye wash/shower with quick-on levers and continuous water delivery
Hazardous materials response trailer contents	Contained in trailer located at plant fire station	Mobile unit capable of managing small spills/leaks from pumps, piping, or tanks, contains various spill management supplies including absorbent, shovel, gloves/PPE and decontamination equipment
Self-contained breathing apparatus (SCBA)	R-F-70 Incinerator control room	Air tank with associated air regulator, supply hoses, and face mask for 30-minute breathing air supply

8.0 ARRANGEMENTS WITH LOCAL AUTHORITIES

In accordance with 40 CFR §§ 262.256 and 264.37 and 30 TAC §§ 335.61 and 152(a)(2), Huntsman has made arrangements with local authorities to provide assistance during emergencies. Should an emergency develop beyond the resources of the plant, the Montgomery County Sheriff's Department and/or the Caney Creek Fire Department will be called in for assistance. The Sheriff's Department will respond to all emergencies to assist in the control of traffic and evacuations. In those cases where outside medical care is needed, it will be provided by the HCA Healthcare Hospital located in Conroe, Texas, or additional hospital districts to be determined by emergency responders. If a fire or emergency condition develops that might affect the surrounding community, the Incident Commander or his/her designated representative shall notify the appropriate authorities.

Huntsman has made arrangements to familiarize local and state emergency response teams (through the Montgomery County Local Emergency Planning Committee (LEPC)) with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes. Arrangements have been made to familiarize the local hospital with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

9.0 EVACUATION PLAN FOR FACILITY PERSONNEL

If the Incident Commander determines that an evacuation of facility personnel is necessary, the following evacuation procedures will be followed:

- Notification to evacuate will be provided by the plant radio system and the plant emergency alarm system;
- All visitors will be escorted or otherwise directed by their Huntsman contact;
- Plant personnel who must remain to operate critical plant operations before they evacuate will follow their specific emergency procedures;
- All evacuated personnel will gather at the designated location(s); and
- Managers will ensure that all are accounted for and that any injuries are cared for, and missing persons will be immediately reported to the Incident Commander.

The evacuation may include all or part of the plant, depending on the nature of the emergency. The evacuation routes for the facility are shown on the map provided in Attachment B.

10.0 NOTIFICATIONS

Notifications and reports must be made during and following emergency situations involving a hazardous waste management unit that require implementation of this RCRA contingency plan. The Incident Commander, or his/her designee, will confirm whether or not any of the notifications must be made.

In accordance with 40 CFR §§ 262.265(d) and 264.56(d) and 30 TAC §§ 335.61 and 153, if the Incident Commander determines that Huntsman has had a release, fire, or explosion that could threaten human health, or the environment, outside the facility, he/she will immediately provide notice to the regional Texas Commission on Environmental Quality (TCEQ) office, the TCEQ Emergency Response Hotline (at 800-832-8224 or 512-463-7727), and/or the National Response Center (at 800-424-8802). The report must include:

- Name and telephone number of reporter;
- Name and address of facility;
- Time and type of incident;
- Name and quantity of material(s) involved, to the extent known;
- The extent of injuries, if any; and
- The possible hazards to human health, or the environment, outside the facility.

Furthermore, the above information will also be reported to the LEPC authorities at 936-523-3900.

If the Incident Commander determines that evacuation of local areas may be advisable, he/she will immediately notify appropriate local authorities.

Any releases of material at greater than a reportable quantity (RQ) amount must be reported immediately upon discovery. Whenever a release notification is made in accordance with hazardous waste regulations, a follow-up written report of the event must be submitted to the TCEQ within 30 days.

In accordance with 40 CFR §§ 262.265(i) and 264.56(i) and 30 TAC §§ 335.61 and 153, Huntsman will note in the operating record the time, date, and details of any incident that requires implementation of this RCRA contingency plan. Within 15 days after the incident, Huntsman will submit a written report on the incident to the TCEQ Industrial and Hazardous Waste Permits Section (Mail Code 130, 12100 Park 35 Circle, Austin, TX 78753, ihwper@tceq.texas.gov) and the TCEQ District Office. The report will include:

- Name, address, and telephone number of the owner or operator;
- Name, address, and telephone number of the facility;

- Date, time, and type of incident (*e.g.*, fire, explosion);
- Name and quantity of material(s) involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- Estimated quantity and disposition of recovered material that resulted from the incident.

11.0 LOCATION AND DISTRIBUTION OF CONTINGENCY PLAN

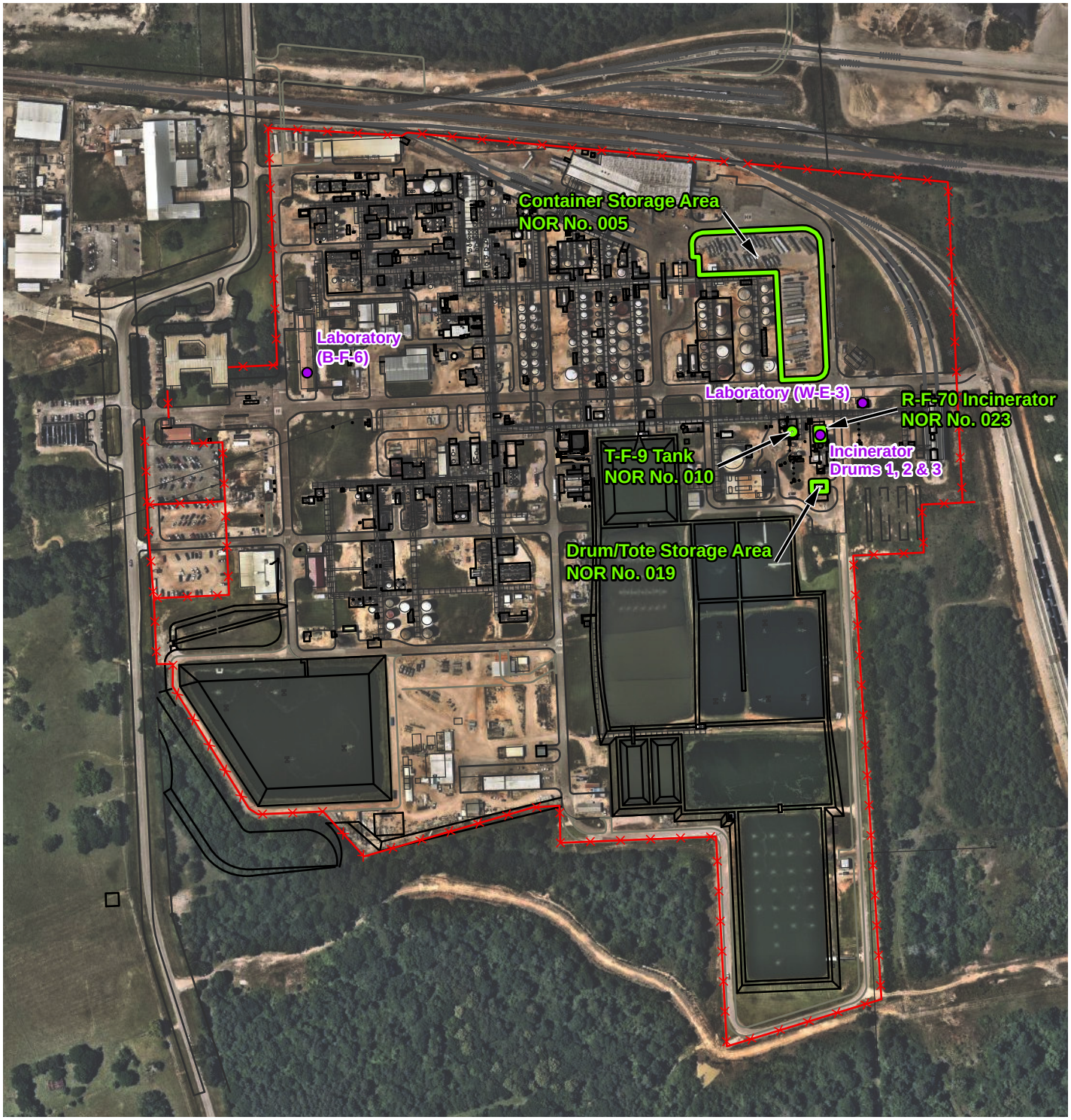
In accordance with 40 CFR §§ 262.262 and 264.53 and 30 TAC §§ 335.61 and 152(a)(3), copies of this plan are made available to Conroe Plant personnel and local authorities. A hard copy of the RCRA contingency plan and all revisions to the plan are available in Conroe Plant's EH&S Department. The plan is also available via electronic media. These copies will be kept on file in accordance with Huntsman's Corporate Record Retention Policy.

12.0 AMENDMENT OF CONTINGENCY PLAN

In accordance with 40 CFR §§ 262.263 and 264.54 and 30 TAC §§ 335.61 and 152(a)(3), the RCRA contingency plan will be reviewed regularly and will be immediately amended, if necessary, whenever the following conditions apply:

- Applicable regulations are revised;
- The facility permit is revised;
- The plan fails in an emergency;
- The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or that changes the response necessary in an emergency;
- The list of emergency coordinators changes; or
- The list of emergency equipment changes.

Attachment A:
HAZARDOUS WASTE UNIT LOCATIONS



Legend

- Facility Fence Line
- Hazardous Waste Units
- Hazardous Waste Satellite Accumulation Areas

N

0 200 400 FEET

1" = 400 FEET
1:4,800

Coterie ENVIRONMENTAL

HUNTSMAN PETROCHEMICAL LLC
CONROE, TEXAS

ATTACHMENT A
HAZARDOUS WASTE UNITS

DRAWN BY:	L WILSON
APPROVED BY:	H MCHALE
PROJECT NO:	081-24-01
FILE NO.	Project.mxd
DATE:	OCTOBER 2025

J:\Prj\Huntsman\Conroe\RCRA 2022\Project.aprx

Attachment B:
FACILITY EVACUATION ROUTE MAP

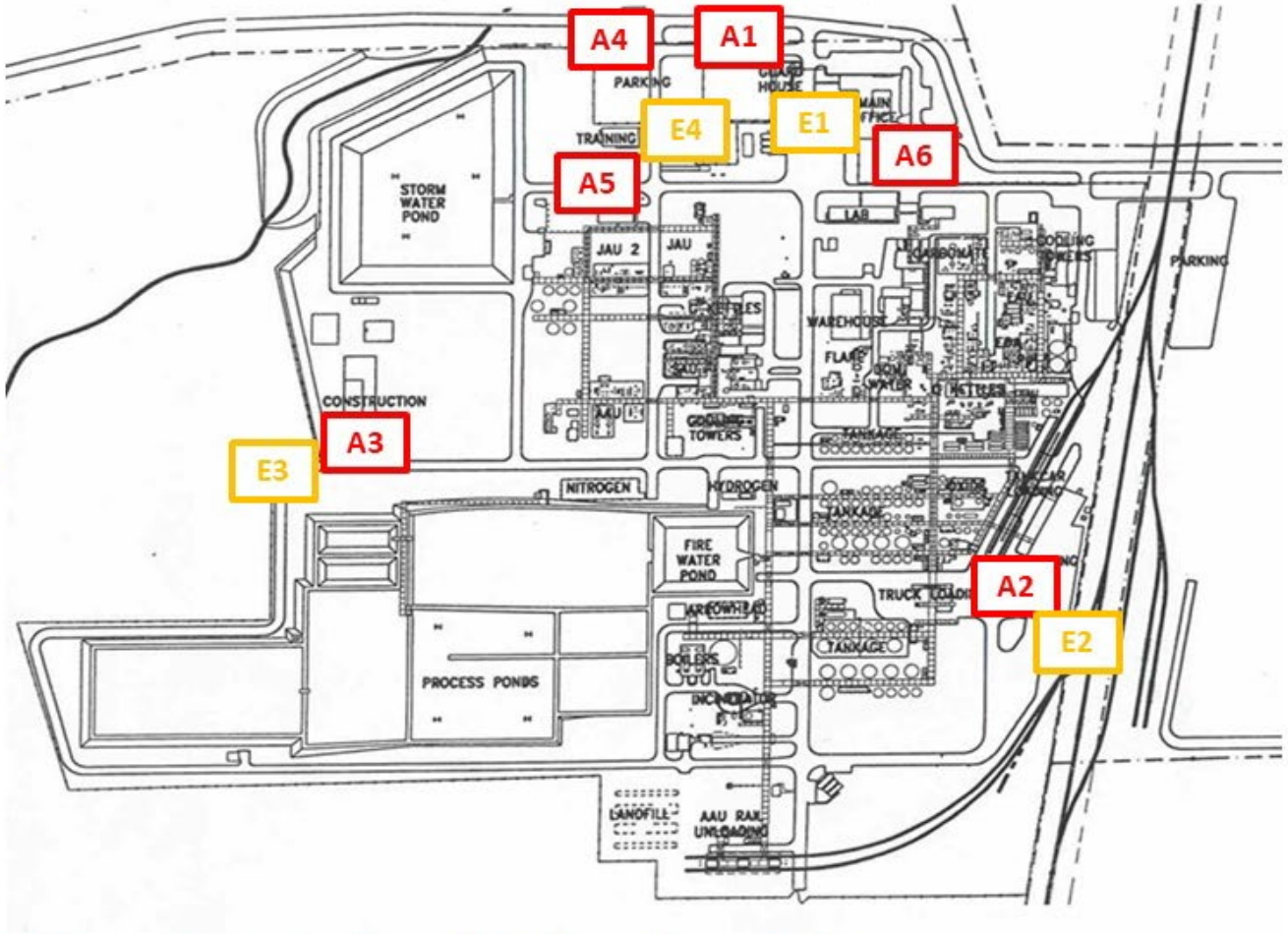
Assemble Areas

Assemble Areas

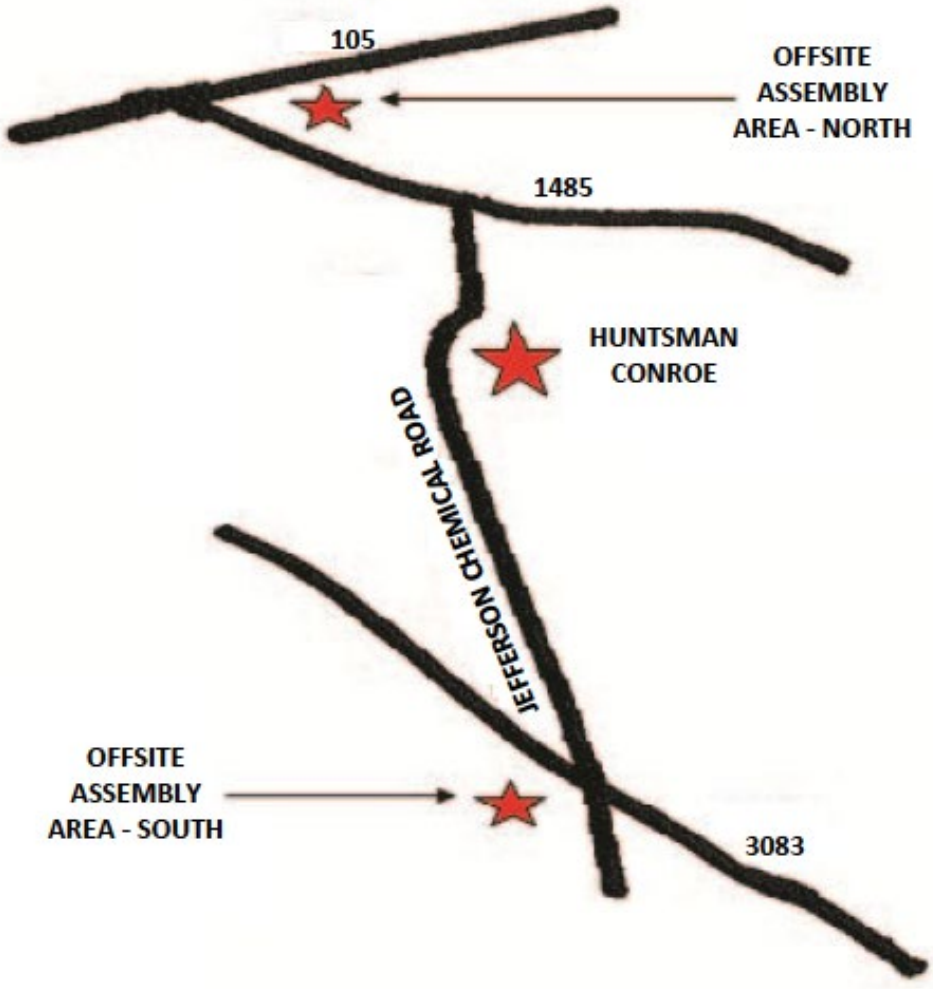
A1 = Main Gate
A2 = Shipping
A3 = Construction
A4 = South Gate
A5 = Training Bldg
A6 = Conf Rm A

Evacuation Gates

E1 = Main Gate
E2 = Shipping
E3 = Construction
E4 = South Gate



Plant Alarm is tested on Wednesday at 12noon


105
OFFSITE
ASSEMBLY
AREA - NORTH
1485
HUNTSMAN
CONROE
JEFFERSON CHEMICAL ROAD
OFFSITE
ASSEMBLY
AREA - SOUTH
3083

IV. WASTES AND WASTE ANALYSIS

IV. Wastes and Waste Analysis

Provide all Part B responsive information in Appendix IV. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

A. Waste Management Information

For a new hazardous waste management facility or for a facility hazardous waste management capacity expansion, complete Table IV.A. - Waste Management Information for each waste, source, and volume of waste to be stored, processed, or disposed of in the facility units to be permitted as required by 30 TAC 305.50(a)(9). For on-site facilities, list "on-site" for the waste source. For off-site facilities, list the source of the waste. If unknown, identify potential sources (e.g., industries/processes to be serviced).

B. Waste Managed In Permitted Units

For all hazardous waste management facilities and for inclusion into a permit, complete Table IV.B. - Wastes Managed In Permitted Units for each waste and debris to be managed in a permitted unit. Provide a description, EPA waste codes, and TCEQ waste form codes and classification codes. Guidelines for the Classification & Coding of Industrial Wastes and Hazardous Wastes, TCEQ publication RG-22, contains guidance for how to properly classify and code industrial waste and hazardous waste in accordance with 30 TAC 335.501-335.515 (Subchapter R).

Applicants need not specify the complete 8-digit waste code formulas for their wastes but must include the 3-digit form codes and 1-digit classification codes. This allows the applicant to specify major categories of wastes in an overall manner without having to list all the specific waste streams as generated.

C. Sampling and Analytical Methods

For inclusion into a permit, complete Table IV.C. - Sampling and Analytical Methods for each waste and debris proposed to be sampled and analyzed and include sampling location, sampling method, sample frequency, analytical method, and desired accuracy level for each waste and debris to be managed in a permitted, storage, processing, or disposal unit at the facility.

D. Waste Analysis Plan

The Waste Analysis Plan must address the requirements of 40 CFR §264.13 and §268.7. The Plan should include supplemental and coordinating information on how the facility will analyze wastes and debris (as listed in Table IV.B) to be managed in permitted units. The plan must address the determination of land disposal restrictions. Generators must determine and certify with the manifest the land disposal restriction status of a waste, even if the waste or debris is not intended for land disposal. Land disposal treatment facilities must identify the treatment process and analytical procedures to be used, and include them in the waste analysis plan. Land disposal restriction records must be maintained at the facility until closure of the facility [40 CFR §264.73(b)]. Landfill facilities must determine through the Paint Filter Liquids Test (SW-846 Method 9095) if there is free liquid in a bulk or containerized waste to be landfilled. If so, it must be stabilized; adding adsorbents alone is not acceptable, even for containerized waste.

For off-site facilities the waste analysis plan must specify procedures which will be used to inspect and, if necessary, analyze each movement of industrial and hazardous waste or hazardous debris received at the facility to ensure it matches the identity of

the waste designated on the accompanying shipping ticket. The plan must describe methods which will be used to determine the identity of each movement of waste and debris managed at the facility and sampling method used if the identification method includes sampling in order to store, process, or dispose of the wastes and debris in accordance with 40 CFR Parts 264 and 268 and any abnormal characteristics which may upset further treatment or processing operations. Include rejection criteria for shipments of waste and debris received at the facility

For on-site facilities the waste analysis plan must specify the normal characteristics of the waste (including EPA hazardous waste codes, EPA hazard codes, and 40 CFR Part 261, Appendix VIII Hazardous Constituents) which must be known to store, process, or dispose of the wastes and debris in accordance with 40 CFR Parts 264 and 268 and any abnormal characteristics which may upset further treatment or processing operations.

The methods and equipment used for sampling waste materials will vary with the form and consistency of the waste materials to be sampled. Those sampling methods listed in 40 CFR Part 261 Appendix I, for sampling waste with properties similar to the indicated materials, or equivalent sampling methods approved by EPA under 40 CFR §260.20 and §260.21, will be considered by the TCEQ to be acceptable.

TABLE OF APPENDICES

APPENDIX	TITLE
IV.A	Waste Management Information (Table IV.A) (Not applicable)
IV.B	Waste Managed in Permitted Units (Table IV.B)
IV.C	Sampling and Analytical Methods (Table IV.C)
IV.D	Waste Analysis Plan

Appendix IV.B:
WASTE MANAGED IN PERMITTED UNITS (TABLE IV.B)

Table IV.B. - Wastes Managed In Permitted Units

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
1	Spent methanol waste	D001, D002, D018, F003, U154	001203H
2	Spent isopropanol waste	D001	0013203H
3	Amine mix waste	D001, D002, D018	0123207H
4	Morpholine bottoms lights waste	D001	0165203H
5	Process residues	Not applicable	00052191
6	Off-specification amines	Not applicable	00082191
7	Off-specification carbonates	Not applicable	00092191
8	Off-specification flexible polyols	Not applicable	00102191

Appendix IV.C:
SAMPLING AND ANALYTICAL METHODS (TABLE IV.C)

Table IV.C. - Sampling and Analytical Methods

Waste No.[1]	Sampling Location	Sampling Method[2]	Frequency	Parameter	Test Method[2]	Desired Accuracy Level[3]
1,2,3,4	Sample tap on discharge line from process	Tap sampling into glass jars	Initially and if the waste generating process changes	Ignitability	SW-846 Method 1010 or ASTM Methods D93 or D3278	Not applicable
1,2,3,4	Sample tap on discharge line from process	Tap sampling into glass jars	Initially and if the waste generating process changes	Corrosivity	SW-846 Method 9040 or NACE Standard TM-01-69	Not applicable
1,2,3,4	Sample tap on discharge line from process	Tap sampling into glass jars	Initially and if the waste generating process changes	Antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, nickel, selenium, silver, thallium, or zinc	SW-846 Method 61010 or 7000 series	MDL for selected method
1,2,3,4	Sample tap on discharge line from process	Tap sampling into glass jars	Initially and if the waste generating process changes	Volatile organics (including benzene)	SW-846 Method 1311, 8240, or 8260	MDL for selected method
1,2,3,4	Sample tap on discharge line from process	Tap sampling into glass jars	Initially and if the waste generating process changes	Semivolatile organics	SW-846 Method 8520 or 8270	MDL for selected method
5,6,7,8	None	None	None	None	None	None

[1] from Table IV.B, first column
[2] Sampling and Test/Analysis methods should be specified in enough detail to allow determination of whether they are suitable and correct for the purpose indicated while allowing flexibility in selection and future updates to the specified method. Standard methods, such as those from SW-846, will generally require no further submittal. Non-standard and proprietary methods may require additional information to determine suitability. ASTM methods may require submittal of a copy of the specified method.
[3] Desired Accuracy Level should provide a specified numeric minimum performance level (maximum acceptable reporting limit) for method detection and quantitation limits that will be accepted from the laboratory performing the analysis and must ensure that reported data will allow determinations of compliance with regulatory limits for the parameter tested.

Appendix IV.D:
WASTE ANALYSIS PLAN

HUNTSMAN

Enriching lives through innovation

HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

WASTE ANALYSIS PLAN

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This RCRA waste analysis plan (WAP) specifies the procedures that Huntsman uses to obtain the required chemical and physical analyses of the hazardous waste managed in the permitted units. These procedures ensure that the hazardous wastes that are treated onsite are managed in accordance with all applicable Federal and Texas RCRA requirements. The plan also includes the parameters for which each waste will be analyzed, the methods that will be used to sample and test for the parameters, and the frequency of analyses. This plan has been developed in accordance with 40 CFR §§ 264.13(b) and (c). In addition to this WAP, Huntsman maintains a Feedstream Analysis Plan to comply with HWC NESHAP requirements.

2.0 CHEMICAL AND PHYSICAL ANALYSIS

The Conroe Plant is a manufacturer of polyols, ethylene and propylene carbonates, and specialty amines. These products are used as intermediates in other manufactured chemicals, cosmetics, and epoxy coatings. During the manufacture of chemical products, several hazardous and non-hazardous wastes are generated that are subsequently processed in the R-F-70 Incinerator.

The baghouse dust generated by the incinerator is managed in a RCRA exempt unit. Therefore, this waste is not included in this plan.

United States Environmental Protection Agency (USEPA) and Texas Commission on Environmental Quality (TCEQ) waste numbers and classifications for the wastes that are managed in Huntsman's hazardous waste units are included in Table IV.B in Section IV of the Part B Permit Application.

2.1 SPENT METHANOL WASTE

Spent methanol waste (TCEQ No. 0001203H) carries the 40 CFR Part 261 hazardous waste numbers of D001 (ignitability), D002 (corrosivity), D018 (benzene), F003 (spent non-halogenated solvent), and U154 (methanol). This waste is generated in the specialty amines unit (SAU) processing areas. This waste is transferred to T-F-9 Tank from the production process. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

2.2 Spent Isopropanol Waste

Spent isopropanol (IPA) waste (TCEQ No. 0013203H) carries the 40 CFR Part 261 hazardous waste number of D001 (ignitability). This waste is generated in the amines and polyurethane polyols processing areas. This waste is transferred to the T-F-9 Tank from the production processes. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

2.3 Amine Mix Waste

Amine mix waste (TCEQ No. 0123207H) carries the 40 CFR Part 261 hazardous waste numbers of D001 (ignitability), D002 (corrosivity), and D018 (benzene). This material is generated in the SAU processing areas. This material is typically sold as a product. When the material does not meet product specifications and is classified as a hazardous waste, it is transferred to T-F-9 Tank from the production process. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

2.4 Morpholine Bottoms Lights Waste

Morpholine bottoms (MB) lights waste (TCEQ No. 0165203H) carries the 40 CFR Part 261 hazardous waste number of D001 (ignitability). This material is generated in the SAU processing areas. This waste is transferred to the T-F-9 Tank from the production processes. It is mixed in the tank with the other wastes to be fed to the R-F-70 Incinerator.

2.5 Non-hazardous Wastes

Various non-hazardous wastes from plant process activities are directed to a 70,000-gallon recirculated storage tank, T-E-40 Tank. These wastes include process residues, off-specification amines, off-specification carbonates, and off-specification flexible polyols. The wastes stored in the T-E-40 Tank, which are fed to the R-F-70 Incinerator via the T-F-2 Tank, normally have high organic content and appreciable heating value.

3.0 Parameters and Rationale

Huntsman must obtain a detailed chemical and physical analysis of the wastes to determine their classification as a hazardous waste and to ensure that they can be safely stored. Pursuant to 40 CFR § 264.13(b)(1), the parameters for which each hazardous waste at the facility will be analyzed and the rationale for their determination are:

- Waste characterization parameters – Analyses are performed to determine the proper waste classifications and numbers; and
- Underlying Hazardous Constituent (UHC) parameters – Analyses are performed to enable assessment of the waste composition for UHCs in accordance with 40 CFR Part 268, Land Disposal Restriction (LDR) Rules

No specific analysis is required to determine whether the wastes can be managed in the incinerator other than to ensure that the only waste numbers carried by the wastes are those for which incineration/combustion has been deemed suitable.

Analyses for compliance parameters are addressed in the facility's HWC NESHAP Feedstream Analysis Plan. This plan includes ongoing sampling and analysis for both the hazardous and non-hazardous wastes that are fed to the incinerator.

4.0 SAMPLING METHODS

Table IV.C in Section IV of the Part B Permit Application lists the sampling locations and methods for the wastes. Samples of the hazardous wastes are obtained from sample ports located on the discharge lines from the processes.

Samples of the hazardous wastes are obtained by taking a grab sample. For each grab sample that is taken, the sampler will:

- Purge the waste sample tap to ensure a fresh sample that is representative of current conditions within the waste line;
- Take the sample with procedures consistent with the analyses to be run (*e.g.*, volatile organic compounds, semi-volatile organic compounds, metals);
- Record the sampling date and time;
- Label the sample container with date, time, sample description, and sampler's name/initials;
- Store the collected sample bottles as appropriate, *i.e.*, in Huntsman's laboratory refrigerator or iced cooler for transport to the appropriate analytical laboratory; and
- Complete chain-of-custody and request for analysis forms with the name of the person collecting the samples, the date and time of sample collection, the type of sample (*e.g.*, grab or composite), the type and size of the sample container, the type of preservative, the number of containers per sample, and record the transfer of sample custody.

Sampling equipment will be decontaminated before and between sampling events or disposed of to minimize the possibility of cross contamination. The equipment is decontaminated using a method appropriate to the type of material.

5.0 ANALYTICAL METHODS

Table IV.C in Section IV of the Part B Permit Application specifies the analytical methods that are used for the hazardous wastes. The analytical methods listed in this table are all USEPA-approved methods. Huntsman may choose to use methods other than those specified in Table IV.C should issues such as matrix interferences warrant use of alternative methods. If the use of alternative methods is necessary, Huntsman will apply for approval through a permit modification as required before utilizing any method not listed in Table IV.C.

6.0 FREQUENCY OF ANALYSES

Pursuant to 40 CFR § 264.13(b)(4), Huntsman has established a frequency with which the initial analysis of the hazardous waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

All hazardous wastes will be analyzed upon their initial generation. If Huntsman believes that the process generating the waste may have changed such that there may be a change in the results of the analytical parameters, sampling and analysis will be conducted. Huntsman's management of change (MOC) program provides a means to monitor plant changes for engineering, raw material, or operational change that would reasonably be expected to impact the nature of the waste.

7.0 COMPLIANCE WITH LAND DISPOSAL RESTRICTIONS

Huntsman will comply with the LDR of 40 CFR Part 268 for all hazardous wastes managed in the RCRA regulated units. The routine wastes that are impacted by this regulation include each hazardous waste transferred into the T-F-9 Tank from its onsite generating unit and transferred from the T-F-9 Tank to the R-F-70 Incinerator.

Huntsman maintains a current file on all onsite wastes which includes all necessary numbers/codes associated with each waste, volumes generated and associated treatability groups, specified technology and other treatment standards and other information needed for Huntsman to satisfy their land ban responsibilities.

Should a situation occur that requires offsite shipment of the wastes sent to the T-F-9 Tank or the contents of the T-F-9 Tank to a permitted treatment, storage, and disposal facility (TSDF) rather than burning this waste onsite, the hazardous waste manifest will be accompanied by a notice that the waste does not meet land disposal restrictions in 40 CFR Part 268. Information that will be provided with the notice includes:

- All waste numbers/codes associated with the waste shipment;
- The treatability group (*i.e.*, non-wastewater);
- The treatment technologies required in 40 CFR § 268.40;
- Information on underlying hazardous constituents found in 40 CFR § 268.48 that are known or suspected of being in the waste; and
- Written certification and notification as required in 40 CFR § 268.7.

A copy of all LDR notices, certifications, and applicable waste analysis data will be maintained in the facility records for a minimum of three years from the date that the waste subject to this documentation was last sent to an offsite disposal facility.

8.0 ADDITIONAL REQUIREMENTS FOR HANDLING IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES

Huntsman complies with the additional requirements in 40 CFR § 264.13(b)(6) for facilities managing ignitable, reactive, or incompatible wastes, as applicable. Accordingly, this WAP provides a description of any additional waste analyses that are required to ensure compliance with RCRA provisions addressing handling of ignitable, reactive, or incompatible wastes.

Huntsman generates ignitable wastes that are collected in the T-F-9 Tank prior to onsite incineration in the R-F-70 Incinerator. Precautions taken by Huntsman to prevent accidental ignition while managing these ignitable hazardous wastes are discussed in Section V.A of the Part B Permit Application. Reactive wastes are not handled in the T-F-9 Tank or the R-F-70 Incinerator. All liquid wastes that are managed in these units are chemically compatible.

Historical analytical testing of the non-hazardous wastes managed in the T-E-40 Tank and the T-F-2 Tank for ignitability have demonstrated that the flash points of these liquids are considerably greater than 140 degrees Fahrenheit (°F). Therefore, they do not fall into the ignitability waste category. All liquid non-hazardous wastes that are managed in the T-E-40 Tank and the T-F-2 Tank are chemically compatible.

9.0 QUALITY ASSURANCE/QUALITY CONTROL

Huntsman utilizes outside commercial laboratories for analysis of the wastes addressed in this plan and for other non-routine waste analyses. Huntsman provides the outside laboratories with information on the analytical methods required for each waste, and a completed chain-of-custody is sent with each sample. The quality of this analytical data is assured by verifying that these laboratories have adequate quality assurance/quality control (QA/QC) programs in place and by reviewing the standard QA/QC packages that are provided with the analytical results. Information in these QA/QC packages that will be reviewed by Huntsman to ensure valid results include:

- Summary results;
- Conformance with sample holding times;
- Instrument calibration results;
- Blank analysis results;
- Surrogate internal standards results; and
- Matrix spike/matrix spike duplicate results.

V. ENGINEERING REPORTS

V. Engineering Reports

Provide all Part B responsive information in Appendix V. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

For multiple units provide an include all Part B responsive information in a separate Appendix for each unit.

The engineering report represents the conceptual basis for the storage, processing, or disposal units at the hazardous waste management (HWM) facility. It should include calculations and other such engineering information as may be necessary to follow the logical development of the facility design. Plans and specifications are an integral part of the report. They should include construction procedures, materials specifications, dimensions, design capacities relative to the volume of wastes (as appropriate), and the information required by 40 CFR 270.14(b)(8), 270.14(b)(10). Since these reports may be incorporated into any issued permit, the report should not include trade names, manufacturers, or vendors of specific materials, equipment, or services unless such information is critical to the technical adequacy of the material. Technical specifications and required performance standards are sufficient to conduct a technical review. For landfills, surface impoundments, and waste piles, a Construction Quality Assurance Plan, which considers the guidance in EPA publication 530-SW-85-014, Minimum Technology Guidance on Double Liner Systems for Landfills and Surface Impoundments; Design, Construction, and Operation, and/or EPA/600/R-93/182, Quality Assurance And Quality Control For Waste Containment Facilities, should be submitted.

For facilities which will receive wastes from off-site sources, the engineering report must also contain information on the units which will manage these off-site wastes in accordance with 30 TAC 335.45(a).

Certain ancillary components or appurtenant devices must be addressed in the Part B application. These include but are not limited to sumps, pipelines, ditches, and canals. The technical information and the level of detail required will vary with the nature, scope, and location of the ancillary component. At a minimum they should be included in descriptions of piping and process flow. More information may be required. A single area containing a large number of ancillary components or a remote appurtenant device in an unusually sensitive location may warrant some specific permit requirements. All ancillary components must be included in calculating closure cost estimates.

In each of the unit-specific sections, describe precautions taken to prevent accidental commingling of incompatible wastes. If reactive or ignitable wastes are to be managed, or if incompatible wastes are deliberately commingled, provide information to ensure that precautions are taken to avoid danger due to:

- generation of extreme heat or pressure, fire, explosion, or violent reaction;
- production of uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- production of uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion;
- damaging the structural integrity of the device or facility containing the waste; or
- threatening human health or the environment by any other means.

Comprehensive consideration should be given to ensure that the facility is designed in accordance with good public health and hazardous waste management practices. The application will be evaluated primarily for the aspects of design covered by the regulations. Nothing in any approval is intended to relieve the facility owner or operator of any liabilities or responsibilities with respect to the design, construction, or operation of the project.

A. General Engineering Reports

1. General Information

Complete Table V.A. - Facility Waste Management Handling Units listing all past, current or proposed units. *[Indicate units' status as* Active, Closed, Inactive *(built but not yet managing waste),* Proposed *(not yet built),* Never Built, Transferred, or Post-Closure. *Indicate appropriate units for Capacity information.]* **Note for renewals and modifications involving adding or dropping units from the permit:** List all TCEQ Permit Unit Numbers that have been assigned previously as in a current permit Attachment D -Authorized Facility Units table and do not reuse or reassign permit numbers for units that have been replaced, closed, removed from the permit, or transferred to other ownership. All Notice of Registration (NOR) Numbers must match the State of Texas Environmental Electronic Reporting System (STEERS) and may not be reused for replacement units.

Provide an overall plan view of the entire facility. Identify each hazardous or industrial solid waste management unit (container storage area, tank, incinerator, etc.) to be permitted in relation to its location and the type of waste managed in that unit. Also provide a plan view at an appropriate scale to clearly show the location of all hazardous waste management units to be permitted on one or more 8 1/2" x 14" sheets. Indicate on this plan view how the design or operation provides for buffer zones or waste segregation as appropriate for incompatible, ignitable, or reactive wastes.

Submit a topographic map or maps of the facility which clearly shows the information specified in 40 CFR 270.14(b)(19), 270.14(c)(3), and 270.14(d)(1)(i) (for large HWM facilities, the TCEQ will allow the use of other scales on a case-by-case basis). Please note that the term "facility" includes all contiguous land, structures, other appurtenances, and improvements on the land for storing, processing, or disposing of hazardous and industrial solid waste.

2. Features to Mitigate Unsuitable Site Characteristics

For all new hazardous waste management storage and/or processing facilities or areal expansions of existing hazardous waste management storage and/or processing facilities, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(a)(1) and (a)(3) through (9).

3. Construction Schedules

a. In order to meet the required design standards, extensive retrofitting of some facilities may be required. In the worst case, the applicant may elect to close certain operations rather than comply with the RCRA standards. Thus, the permit may specify a schedule of compliance requiring the accomplishment of given tasks within specific time frames. As required, indicate an appropriate schedule(s) of compliance in this application. The schedule should provide for facility compliance as soon as possible and in accordance with 40 CFR 270.33(a)(2) and 270.33(b).

b. For commercial hazardous waste management facilities, permit applications (new, renewal, or interim status applications), major amendments, and Class 3 modifications must include a construction schedule. A construction schedule must be submitted even if the application does not include an addition of units or a revision to permitted units. This schedule should comply with the requirements of 30 TAC 305.149.

4. Provide detailed plans and specifications which when, accompanied by the engineering report, will be sufficiently detailed and complete to allow the Executive Director to ascertain whether the facility will be constructed and operated in compliance with all pertinent permitting requirements. Engineering plans and specifications must be prepared under the supervision of and sealed by a licensed Professional Engineer, with current license, along with the Registered Engineering Firm's name and Registration Number as required by the Texas Engineering Practice Act. For some facilities, plans in the form of a standard piping and instrumentation diagram will be sufficient. Overall dimensions and materials of construction must be shown.

B. Container Storage Areas

1. Provide an engineering report which includes all of the information specified in 40 CFR 264.170-264.173, 264.175-264.177, and 270.15.
Complete Table V.B - Container Storage Areas and list the container storage areas covered by this application to be permitted. List the N.O.R. unit number, the rated capacity or size of each unit (including the maximum number of each type of container to be stored at each unit and total maximum capacity of all types wastes stored in the unit), the areal dimensions, containment volume, aisle space requirements, whether ignitable, reactive, or incompatible waste will be stored in each unit, and whether processing will occur within the unit.

2. Container storage areas must have a containment system that is capable of collecting and holding spills, leaks, and precipitation. In addition to the requirements of 40 CFR 270.15, the design report should include the following:

a. Capacity of the containment relative to the number and volume of containers to be stored; in addition, for unenclosed areas, the amount of rainfall collected prior to removal. The TCEQ recommends using a 25-year, 24-hour rainfall event for this extra capacity; and

b. Run-on into the containment system must be prevented, or a collection system with sufficient excess capacity must be provided. If run-on is collected within the containment system, delineate the area(s) from which run-on is collected. The 25-year, 24-hour rainfall event should be used to calculate the excess capacity.

3. Wastes Containing No Free Liquids
With the exception of 40 CFR 264.175(d), storage areas that hold only wastes that do not contain free liquids need not have a containment system, provided that compliance with 40 CFR 264.175(c) is demonstrated. This demonstration must be submitted as part of the application and must include:

a. test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

b. a description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing

liquids.

4. Managing Ignitable or Reactive Wastes

   If a container storage area will manage ignitable or reactive waste, as indicated on Table V.B, provide in the engineering report drawings demonstrating compliance with the buffer zone requirement of 40 CFR 264.17 and 264.176.

5. Managing Incompatible Wastes

   If a container storage area will manage incompatible waste, as indicated on Table V.B, provide in the engineering report a description of the procedures used to ensure compliance with 40 CFR 264.17 and 264.177.

6. Managing Nonhazardous Wastes and/or Universal Wastes

   If a container storage area will manage nonhazardous wastes, and/or universal wastes in addition to hazardous waste, provide a description of all types of wastes managed in the engineering report and procedures used to ensure compliance with 40 CFR 264 Subpart I.

C. Tanks and Tank Systems

Provide an engineering report which includes all of the information specified in 40 CFR 264.190-264.194, 264.196, 264.198-264.199, and 270.16.

1. For inclusion into a permit, complete Table V.C - Tanks and Tank Systems and list the tanks covered by this application to be permitted. List the N.O.R. unit number, whether the unit is for storage and/or processing, the waste managed in each unit, the rated capacity of each unit, overall dimensions of each unit, containment volume, and whether ignitable, reactive, or incompatible waste will be stored in each unit.

2. For inclusion into a permit, complete Table V.C - Tanks and Tank Systems and list the tanks covered by this application to be permitted. List the N.O.R. unit number, whether the unit is for storage and/or processing, the waste managed in each unit, the rated capacity of each unit, overall dimensions of each unit, containment volume, and whether ignitable, reactive, or incompatible waste will be stored in each unit.

3. If a tank will manage incompatible waste, as indicated on Table V.C, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.199.

4. Submit written assessments that were reviewed and certified by an independent, qualified licensed Professional Engineer that attests to the structural integrity and suitability of handling the hazardous waste for each tank system, as required under 40 CFR 264.191-264.192 for existing tanks which do not have secondary containment meeting the standards of 40 CFR 264.193. The engineer signing the written assessment must make the certification specified in 40 CFR 270.11(d). The certification must be sealed by a licensed Professional Engineer, with current license, along with the Registered Engineering Firm's name and Registration Number as required by the Texas Engineering Practice Act.

5. If a tank has been de-rated or if the permitted capacity is otherwise different from the design capacity, specify any such change(s) in the engineering report.

Provide in the report any additional information for tanks and tank systems as specified in the above regulatory citations including: specifics of leak, spill, and unfit for use systems responses; assessments of tank systems; new tank systems or components; overfill control and prevention; special requirements for ignitable and/or reactive wastes; incompatible wastes; air emissions control; detection of leaks into secondary containment; ancillary equipment; and plans and specifications individually sealed by a licensed professional engineer with current Texas registration with the Registered Engineering Firm's name and Registration number.

D. Surface Impoundments

For Surface Impoundments Closed as a Landfill

1. Provide as-built plans and specifications for the final cover system, individually for each unit that is sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and Registration Number would satisfy this requirement; Other as-built plans and specifications for the unit may be submitted upon request.

2. Complete Table V.D.1 - Surface Impoundments and list the surface impoundments, covered by this application, to be permitted. List the waste(s) managed in each unit and the rated capacity or size of each unit.

3. Complete Table V.D. 6. - Surface Impoundment Liner System for each surface impoundment to be permitted.

For Proposed or Active Surface Impoundments

Provide an engineering report which includes all of the information specified in 30 TAC 305.50(a)(6), 335.168, 335.169, and 40 CFR 264.19, 264.220, 264.221, 264.222, 264.223, 264.226(a) and (c), 264.227, 264.229-264.231, and 270.17.

For storage surface impoundments at a new hazardous waste management facility or which are part of an areal expansion of an existing hazardous waste management facility, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(d). For any surface impoundment to be closed as a landfill (where wastes will remain after closure of the impoundment) at a new hazardous waste management facility or which are part of an areal expansion of an existing hazardous waste management facility, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(e).

For all impoundments, include in the report the following information.

1. Complete Table V.D.1 - Surface Impoundments and list the surface impoundments, covered by this application, to be permitted. List the waste(s) managed in each unit and the rated capacity or size of each unit.

2. If a surface impoundment will manage ignitable or reactive waste, as indicated on Table V.D.1., describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.229.

3. If a surface impoundment will manage incompatible waste, as indicated on Table V.D.1., describe in the engineering report the procedures used to ensure

compliance with 40 CFR 264.17 and 264.230.

4. If a surface impoundment will manage F020, F021, F022, F023, F026, and F027 waste, as indicated on Table V.D.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.231.

5. Describe the surface impoundment. Detailed plan view and cross-sectional drawings of the surface impoundment should be included with the engineering report.

6. Freeboard
Specify the minimum freeboard to be maintained and the basis of the design to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error. Show that adequate freeboard will be available to prevent overtopping from a 100-year, 24-hour storm. [40 CFR 264.221(g)]
If the impoundment is inflow sensitive, it should be equipped with a high-level alarm based on a different level sensor than that used for automatic control.

7. Waste Flow
Describe the means that will be used to immediately shut off the flow of waste to the impoundment to prevent overtopping or in the event of liner failure, and include appropriate detailed drawings.
If the surface impoundment is a flow-through facility describe the flow of waste, including a hydraulic profile.

8. Dike Construction

   a. If dikes are used, download the dike design and materials of construction engineering certification from the attachments list the following certification as part of the engineering report:

   b. The structural integrity of the dike system must be certified by a qualified Professional Engineer before a permit is issued. If the impoundment is not being used, the dike licensed system must be certified before it can be put into use. The certification must be sealed by a licensed Professional Engineer, with current license, along with the Registered Engineering Firm's name and Registration Number as required by the Texas Engineering Practice Act.

   c. A report shall accompany the dike certification which summarizes the activities, calculations, and laboratory and field analyses performed in support of the dike certification. Describe the design basis used in construction of the dikes. Provide the following analyses as attachments to the engineering report (A Quality Assurance Project Plan <QAPP> should be included in the report to ensure that each analysis is performed appropriately):

      (1) Slope Stability Analysis
      (2) Hydrostatic and Hydrodynamic Analysis
      (3) Storm Loading
      (4) Rapid Drawdown

   d. Earthen dikes should have a protective cover to minimize wind and water erosion and to preserve the structural integrity of the dike. Describe the

protective cover used and describe its installation and maintenance.

9. Containment System

We suggest that the applicant use available recognized guidance documents, such as EPA publication 530 SW 85 014, which provide design guidance for liner systems. The applicant is strongly encouraged to test each synthetic liner after installation by an electrical leak location test, such as the electric field method described in EPA Technical Guidance Document EPA/600/R-93/182, Quality Assurance and Quality Control for Waste Containment Facilities, or an equivalent method, such as those found in ASTM publications, and approved by the Executive Director. Construction above the liner may not proceed until any detected leaks are sealed.

a. Complete Table V.D. 6. - Surface Impoundment Liner System for each surface impoundment to be permitted.

b. In the engineering report, describe the design, installation and operation of liner and leak detection components. The description must demonstrate that the liner and leak detection system will prevent discharge to the land, and ground and surface water. Include the following analyses as attachments to the engineering report (A QAPP should be included in the report to ensure that each analysis is performed appropriately):

For artificial liners:

(1) Seaming method
(2) Surface preparation method
(3) Tensile Strength
(4) Impact Resistance
(5) Compatibility Demonstration
(6) Foundation Design (including Settlement Potential, Bearing Capacity and Stability, and Potential for Bottom Heave Blow-out)

For soil liners:

(1) Waste Migration Analysis (based on head, porosity, and permeability) for the most mobile and least attenuated waste constituents
(2) Atterberg Limits, % passing a #200 sieve, and Permeability
(3) Moisture Content
(4) Standard Proctor Density, Compaction Data

For leachate collection systems:

(1) Pipe Material and Strength
(2) Pipe Network Spacing and Grading
(3) Collection Sump(s) Material and Strength
(4) Drainage Media Specifications and Performance
(5) Analyses showing that pipe and pipe perforation size will prevent clogging and allow free liquid access to the pipe.
(6) Compatibility Demonstration
(7) Capacity of System
    (a) rate of leachate removal
    (b) capacity of sumps
    (c) thickness of mounding and maximum hydraulic head

c. Specify the liner system installation date and expected lifetime of liner system (years).

d. Specify whether the liner is chemically resistant to the waste and how this resistance was determined. Attach any tests or documentation to the engineering report.

e. Submit a quality assurance/quality control plan for all components to demonstrate that all components will be properly installed and will perform to design specifications.

f. Submit a Response Action Plan that proposes actions to be taken if the Action Leakage Rate for the surface impoundment exceeds. At a minimum the Response Action Plan must include the requirements of 40 CFR 264.223.

10. Surface impoundments that receive waste on or after May 8, 1985 (or for newly-regulated units, the effective date of the new RCRA regulation) into new units and/or lateral expansions or replacements of existing units must meet the minimum technological requirements of the Hazardous and Solid Waste Amendments of 1984, unless an appropriate waiver is granted by the Commission. The owner or operator of each new surface impoundment unit for which the construction commences after January 29, 1992, or each lateral expansion of an existing surface impoundment unit where construction commences after July 29, 1992, or replacement of an existing surface impoundment unit that commence reuse after July 29, 1992 must install two or more liners and leachate collection and removal system unless commission approves alternate design or operating practices. Plans and specifications for both new and existing surface impoundments must demonstrate conformity with 30 TAC 335.168 and 40 CFR 264.221

11. Run-on Diversion

    Describe in detail how the surface impoundment system will manage stormwater run-on away from the surface impoundment. Stormwater run-on must be diverted away from a surface impoundment. Use at least a 100-year, 24-hour rainfall event in the design and analysis of diversion structures. Where dikes are used to divert run-on, they must be protected from erosion. Include all analyses used to calculate run-on volumes.

12. The Commission may approve an alternate design or operating practice for a surface impoundment if the owner or operator demonstrates that such design or operating practices, together with location characteristics [40 CFR 264.221(d)]:

    a. Will prevent the migration of hazardous constituents into the groundwater or surface water at least as effectively as the liners and leachate collection and removal system required by 40 CFR 264.221; and

    b. Will allow detection leaks of hazardous constituents through the top liner at least as effectively.

13. Exemption from Double-Liner Requirements for Monofills [264.221(e)]

    Owners or operators of hazardous waste surface impoundment monofills will be exempted from the double-liner requirements if the Commission finds, based on a demonstration by the owner or operator, that alternative design and

operating practices, together with location characteristics are at least as effective as a double liner in preventing migration of hazardous constituents to the groundwater or surface water. If an exemption is sought, submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time.

E. Waste Piles

This section applies to owners or operators of industrial solid waste facilities that store or process hazardous waste in piles. A hazardous waste pile that will be closed with wastes left in place must be managed as a landfill. Existing portions of waste piles are those areas that were listed on the original Part A and on which wastes have been lawfully placed.

For Waste Piles Closed as a Landfill

1. Provide as-built plans and specifications for the final cover system, individually for each unit that is sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and Registration Number would satisfy this requirement; Other as-built plans and specifications for the unit may be submitted upon request.
2. Complete Table V.E.1 - Waste Piles and list the waste piles covered by this application. List the waste managed in each unit and the rated capacity or size of the unit.
3. Complete Table V.E. 3 - Waste Pile Liner System and specify the type of containment/ liner system.

   Provide an engineering report which includes all of the information specified in 30 TAC 335.170 and 40 CFR 264.19, 264.250, 264.251, 264.252-264.253, 264.254(a) and (c), 264.256, 264.257, 264.259, and 270.18.

   For waste piles at a new hazardous waste management facility or which are part of any areal expansion of an existing hazardous waste management facility, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(c).

   For all waste piles, include in the report the following information.

   1. For inclusion into a permit, complete Table V.E.1 - Waste Piles and list the waste piles covered by this application. List the waste managed in each unit and the rated capacity or size of the unit.
   2. If a waste pile will manage ignitable or reactive waste, as indicated on Table V.E.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.256.
   3. If a waste pile will manage incompatible waste, as indicated on Table V.E.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.257.
   4. If a waste pile will manage F020, F021, F022, F023, F026, and F027 waste, as indicated on Table V.E.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.259.

5. Describe the waste pile, including any structure surrounding or enclosing the waste pile.

6. Containment System
We suggest that the applicant use available recognized guidance documents, such as EPA publication 530-SW-85-014, which provide design guidance for liner systems. The applicant is strongly encouraged to test each synthetic liner after installation by an electrical leak location test, such as the electric field method described in EPA Technical Guidance Document EPA/600/R-93/182, Quality Assurance and Quality Control for Waste Containment Facilities, or an equivalent method, such as those found in ASTM publications, and approved by the Executive Director. Construction above the liner may not proceed until any detected leaks are sealed.

   a. For inclusion into a permit, complete Table V.E. 3 - Waste Pile Liner System and specify the type of containment/liner system.

   b. In the engineering report, describe the design, installation, construction, and operation of the liner and leachate collection system. The description must demonstrate that containment systems will prevent discharge to the land, surface water, or groundwater. Include the following analyses as attachments to the engineering report, when applicable to the containment system being described (A QAPP should be included in the report to ensure that each analysis is performed appropriately):

For artificial liners:

(1) Seaming method
(2) Surface preparation method
(3) Tensile Strength
(4) Impact Resistance
(5) Compatibility Demonstration
(6) Foundation Design (including Settlement Potential, Bearing Capacity and Stability, and Potential for Bottom Heave Blow-out)

For soil liners:

(7) Waste Migration Analysis (based on head, porosity, and permeability) for the most mobile and least attenuated constituents.
(8) Atterberg Limits, % passing a #200 sieve, and Permeability
(9) Moisture Content
(10) Standard Proctor Density, Compaction Data

For leachate detection, collection, and removal system:

(11) Capacity of system
   (a) rate of leachate removal
   (b) capacity of sumps
   (c) thickness of mounding and maximum hydraulic head
(12) Pipe Material and Strength
(13) Pipe Network Spacing and Grading
(14) Collection Sump(s) Material and Strength
(15) Drainage Media Specifications and Performance

(16) Analysis showing that pipe and perforation size will prevent clogging and allow free liquid access to the pipe.
(17) Compatibility Demonstration

c. Containment/liner system installation date and expected lifetime of liner system (years).

d. Specify whether the containment/liner system is chemically resistant to the waste and how this resistance was determined. Attach any tests or documentation to the engineering report.

e. Submit a quality assurance/quality control plan for all components to demonstrate that all components will be properly installed and will perform to design specifications.

f. Submit a Response Action Plan that proposes actions to be taken if the Action Leakage Rate for the waste pile exceeds. At a minimum the Response Action Plan must include the requirements of 40 CFR 264.253.

7. Wind Dispersal [30 TAC 335.170(j)]

Waste piles containing hazardous waste which could be subject to dispersal by wind must be covered or otherwise managed so that wind dispersal is minimized. Describe practices to control wind dispersal (e.g., cover or frequent wetting) of the hazardous waste.

8. Run-on Diversion [30 TAC 335.170(g)]

Describe in detail the measures used to control and divert run-on from the unit. The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 100-year, 24-hour storm.

Include all analyses used to calculate: flow rates; run-on volume and depth; and back-water calculations for the ditches on plant property.

Any tanks or basins associated with the run-on control systems must be emptied or otherwise managed expeditiously after a storm to maintain the design capacity of the system. [30 TAC 335.170(i)]

9. Run-off Control [30 TAC 335.170(h)]

Describe in detail the measures used to control run-off from the unit. Include all analyses used to calculate the run-off volumes.

The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 100-year, 24-hour storm.

Collection and holding facilities (e.g., tanks or basins) associated with the run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system. [30 TAC 335.170(i)]

10. Give a description of design and operating procedures to properly manage and/or dispose of any residuals (e.g., leachate) that may be generated during waste management. Describe the management process and any equipment used.

11. Provide a description and list of all equipment and procedures used to place the

waste in or on the waste pile, and how the liner surface will be exposed for inspection, if necessary. A containment system must be protected from plant growth which could puncture any component of the system.

12. Exemption from Liner and Leachate Collection Requirements

The Commission may approve an alternate design or operating practice for a waste pile if the owner or operator demonstrates that such design or operating practices, together with location characteristics [40 CFR 264.251(d)]:

a. Will prevent the migration of hazardous constituents into the groundwater or surface water at least as effectively as the liners and leachate collection and removal system; and

b. Will allow detection leaks of hazardous constituents through the top liner at least as effectively.

13. Exemption from Groundwater Monitoring under 40 CFR 264.250(c)

A waste pile may be exempt from groundwater monitoring if the following standards are met:

a. The waste pile (including its underlying liners) must be located entirely above the seasonal high water table; and

b. The waste pile is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated, provided that:

(1) Liquids or materials containing free liquids are not placed in the pile;

(2) The waste pile is protected from surface water run-on by the structure or in some other manner;

(3) The waste pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

(4) The waste pile will not generate leachate through decomposition or other reactions; or

c. The waste pile must have a leachate collection and removal system above the top liner; and

d. Underlayment:

(1) either:

(a) The waste pile must be underlain by two liners, which are designed and constructed in a manner that prevents the migration of liquids into or out of the space between the liners and a leak detection system which must be designed, constructed, maintained, and operated between the liners to detect any migration of liquids into the space between the liners; and

(b) A demonstration must be made that there is a low potential for migration of liquid from the waste pile to the uppermost aquifer during the life of the waste pile (including the closure period). The owner or operator must base any predictions made on assumptions that maximize the rate of liquid migration;

(2) or:

(a) The waste pile must be underlain by a liner (base) that is designed, constructed, and installed in a manner that prevents the migration of liquids or waste beyond the liner; and

(b) The wastes in the waste pile must be removed periodically, and the liner must be inspected for deterioration, cracks, or other conditions that may result in leaks. The frequency of inspection will be specified in the inspection plan and must be based on the potential for the liner (base) to crack or otherwise deteriorate under the conditions of operation (e.g., waste type, rainfall, loading rates and subsurface stability).

The liner(s) used to satisfy V.D.13.d. must be of sufficient strength and thickness to prevent failure due to puncture, cracking, tearing, or other physical damage from equipment used to place waste in or on the pile or to clean and expose the liner surface for inspection.

F. Land Treatment Units

Provide an engineering report which includes all of the information specified in 30 TAC 305.50(a)(6), 335.171, 335.172, 40 CFR 264.270-264.272, 264.273, 264.276, 264.278, 264.279, 264.281-264.283, and 270.20 for each land treatment unit.

For land treatment units at a new hazardous waste management facility or which are part of an areal expansion of an existing hazardous waste management facility, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(b).

For all land treatment units, include in the report the following information.

1. Complete Tables V.F.1 - Land Treatment Units and V.F.2 - Land Treatment Unit Capacity and list the land treatment units covered by this application. List the waste(s) managed in each unit and the rated capacity or size of the unit. If different wastes are placed on separate portions of the land treatment area, each portion is considered a land treatment unit, and requires a separate summary form and engineering report.

   The treatment zone is defined as the soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed, or immobilized. In this section, specify the depth of the treatment zone. The maximum depth of the treatment zone for new land treatment units must be [40 CFR 264.271(c)]:

   a. No more than 1.5 meters (5 feet) from the surface; and

   b. More than 1 meter (3 feet) above the seasonal high water table.

2. If a land treatment unit will manage ignitable or reactive waste, as indicated on Table V.F.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.281.

3. If a land treatment unit will manage incompatible waste, as indicated on Table V.F.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.282.

4. If a land treatment unit will manage F020, F021, F022, F023, F026 and F027 waste, as indicated on Table V.F.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.283.

5. Describe the land treatment unit. The report shall include all the information requested in this section including drawings. At a minimum, a plan view and cross-section of the unit should be included with the engineering report.

6. Complete Table V.F.3. - Land Treatment Principal Hazardous Constituents and list the wastes for which the treatment demonstration will be made and the principal hazardous constituents in each waste. Specify in the report the data sources to be used to make the demonstration such as laboratory data, field data, operating data, literature, or other.

7. Run-on Diversion
Describe in detail the measures used to control run-on and divert run-on from the unit. Include all the analyses used to calculate the run-on volumes.
The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the land treatment unit during peak discharge from a 100-year, 24-hour storm. [30 TAC 335.171(3)]
Collection holding facilities (e.g., tanks or basins) associated with the run-on control system must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system. [30 TAC 335.171(5)].

8. Run-off Control
Describe in detail the measures used to control the run-off from the unit, and minimize hazardous constituents in the run-off, include all the analyses used to calculate the run-off volumes.
The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 100-year, 24-hour storm. [30 TAC 335.171(4)]
Collection and holding facilities (e.g., tanks or basins) associated with run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system. [30 TAC 335.171(5)]

9. Wind Dispersal
The owner or operator of a land treatment unit containing hazardous waste which could be subject to dispersal by wind must cover or otherwise manage the land treatment unit so that wind dispersal is minimized. Describe practices to control wind dispersal (e.g., cover or frequent wetting) of the hazardous waste. [30 TAC 335.171(6)]

10. Treatment Demonstration
A description of the treatment demonstration required under 40 CFR 264.272 and 270.20(a) shall be included with the engineering report. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration, he must obtain a treatment or disposal permit.

11. The owner or operator must establish an unsaturated zone monitoring program in accordance with 40 CFR 264.278 and a detailed monitoring program must be included in the application.

12. Food Chain Crops [40 CFR 264.276]

Several conditions must be satisfied if food-chain crops are to be grown in or on the treatment zone. A demonstration must be prepared similar to the one described in the Treatment Demonstration and submitted at least 90 days prior to the planting of crops. The demonstration need not be submitted with this application. However, a description of the demonstration must be included as part of the engineering report. This demonstration may be combined with the Treatment Demonstration description, as some of the information required is identical.

G. Landfills

For Closed Landfills

1. Provide as-built plans and specifications for the final cover system, individually for each unit that is sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and Registration Number would satisfy this requirement; Other as-built plans and specifications for the unit may be submitted upon request.

2. Complete Table V.G.1 - Landfills and list the landfills (and number of cells, if applicable) covered by this application. List the waste(s) managed in each unit and the rated capacity or size of the unit. If wastes are segregated in some manner, list the cell number in which wastes are placed next to each waste type.

3. Complete Table V.G.3. - Landfill Liner System and specify the type of liner used for the landfill.

4. Complete Table V.G.4. - Landfill Leachate Collection System used for the landfill.

Provide an engineering report which includes all of the information specified in 30 TAC 305.50(a)(5), (6), (9), (10), and (12), 335.173, 40 CFR 264.19, 264.300, 264.301, 264.302, 264.303(a), 264.304, 264.309, 264.312, 264.313, 264.315-264.317, and applicable requirements of 270.21. The text of the report should be written to supplement engineering plans, specifications, and test results necessary to provide a detailed description of how the landfill will comply with these standards.

For landfills at a new hazardous waste management facility or which are part of an areal expansion of an existing hazardous waste management facility, include in the engineering report design, construction, and operational information specified in 30 TAC 335.204(e).

For all landfills, include in the report the following information.

1. Complete Table V.G.1 - Landfills and list the landfills (and number of cells, if applicable) covered by this application. List the waste(s) managed in each unit and the rated capacity or size of the unit. If wastes are segregated in some manner, list the cell number in which wastes are placed next to each waste type.

2. If a landfill will manage ignitable or reactive waste, as indicated on Table V.G.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.312.

3. If a landfill will manage incompatible waste, as indicated on Table V.G.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17 and 264.313.

4. If a landfill will manage F020, F021, F022, F023, F026, and F027 waste, as indicated on Table V.G.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.317.

5. Describe the landfill. A plan view and cross-section of the landfill should be included with the engineering report. As appropriate, detailed plan, elevation, cross-section of landfill containment facilities shall be included with the report.

6. Containment System
We suggest that the applicant use available recognized guidance documents, such as EPA publication 530-SW-85-014, which provide design guidance for liner systems. The applicant is strongly encouraged to test each synthetic liner after installation by an electrical leak location test, such as the electric field method described in EPA Technical Guidance Document EPA/600/R-93/182, Quality Assurance and Quality Control for Waste Containment Facilities, or an equivalent method, such as those found in ASTM publications, and approved by the Executive Director. Construction above the liner may not proceed until any detected leaks are sealed.

   a. Complete Table V.G.3. - Landfill Liner System and specify the type of liner used for the landfill.

   b. In the engineering report, describe the design, installation, construction, and operation of the liner and leachate collection system. The description must demonstrate that the liner system will prevent discharge to the land, groundwater, and surface water. The following analyses should be included as attachments to the engineering report (A QAPP should be included in the report to ensure that each analysis is performed appropriately):

For artificial liners:

(1) Seaming method
(2) Surface preparation method
(3) Tensile Strength
(4) Impact Resistance
(5) Compatibility Demonstration
(6) Foundation Design (including Settlement Potential, Bearing Capacity and Stability, and Potential for Bottom Heave Blow-out)

For soil liners:

(7) Waste Migration Analysis (based on head, porosity, and permeability) for the most mobile and least attenuated waste constituents
(8) Atterberg Limits, % passing a #200 sieve, and Permeability
(9) Moisture Content
(10) Standard Proctor Density, Compaction Data

For Leachate Collection System

For incorporation into the permit, complete Table V.G.4. - Landfill Leachate Collection System and Table V.G.5 - Landfill Soil Specifications used for the

landfill.

(11) Capacity of the system:

(a) rate of leachate removal

(b) capacity of sumps

(c) thickness of mounding and maximum hydraulic head

(12) Pipe Material and Strength
(13) Pipe Network Spacing and Grading
(14) Collection Sump(s) Material and Strength
(15) Drainage Media Specifications and Performance
(16) Analyses showing that pipe and pipe perforation size will prevent clogging and allow free liquid access to the pipe.
(17) Compatibility Demonstration

c. State whether the liner system components are chemically resistant to the waste and how this resistance was determined. Attach any tests or documentation to the engineering report.

d. Provide a quality assurance/quality control plan for all components to demonstrate that all components will be properly installed and will perform to design specifications.

e. Whether the leachate collection components are chemically resistant to the waste and how this resistance was determined. Attach any tests or documentation to the engineering report.

f. Provide a Response Action Plan that proposes actions to be taken in the case of exceedance of the landfill Action Leakage Rate. At a minimum the Response Action Plan must include the requirements of 40 CFR 264.304.

7. For Dikes:

a. Slope Stability Analysis;
b. Hydrostatic and Hydrodynamic Analyses
c. Ability to withstand scouring from leaking liner.

8. Landfills that receive waste on or after May 8, 1985 (or for newly-regulated units, the effective date of the new RCRA regulation) into new units and/or lateral expansions or replacements of existing units must meet the minimum technological requirements of the Hazardous and Solid Waste Amendments of 1984, unless an appropriate waiver is granted by the Commission. The owner or operator of each new landfill unit for which the construction commences after January 29, 1992, or each lateral expansion of an existing landfill unit where construction commences after July 29, 1992, or replacement of an existing landfill unit that commence reuse after July 29, 1992 must install two or more liners and leachate collection and removal system unless commission approves alternate design or operating practices. Plans and specifications for both new and existing landfills must demonstrate conformity with 30 TAC 335.173 and 40 CFR 264.301(c).

9. Site Development Plan

Describe the methods used to deposit waste in the landfill. This description should include rate of waste deposition, waste segregation, average lift size, maximum lift, average cell or trench size, maximum cell or trench size, and other information necessary to depict how the landfill will be developed. Do not

include liner or leachate collection system information, closure information, or handling of special wastes. This will be included elsewhere in the report.

10. Run-on Control [30 TAC 335.173(g)]

The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 100-year, 24-hour storm.

In the engineering report, include the following analyses:

a. Run-on volume and depth calculations from the peak discharge of the 100-year, 24-hour storm; and

b. For ditches on the plant property, back-water calculations.

Collection and holding facilities (e.g., tanks or basins) associated with the run-on control system must be emptied or otherwise managed expeditiously. [30 TAC 335.173(i)]

11. Run-off Control [30 TAC 335.173(h)]

The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control the water volume resulting from a 100-year, 24-hour storm.

Include all analyses used to calculate run-off volumes.

Collection and holding facilities (e.g., tanks or basins) associated with run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system. [30 TAC 335.173(i)]

12. Wind Dispersal [30 TAC 335.173(j)]

If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to minimize wind dispersal. Based upon the characteristics of the material to be landfilled describe the likelihood of wind dispersal occurring. Describe in detail any method and/or control mechanism used to prevent wind dispersal.

13. Liquid Waste

If liquid waste or waste containing free liquids is to be stabilized and then placed in the landfill, the procedures used to stabilize the waste must be described in the engineering report. The waste must be treated prior to landfilling using a treatment technology that does not solely involve the use of a material that functions primarily as a sorbent. Provide supporting documentation to verify that an appropriate stabilization procedure is used to comply with 30 TAC 335.175.

14. The Commission may approve an alternate design or operating practice for a landfill if the owner or operator demonstrates that such design or operating practices, together with location characteristics [40 CFR 264.301(d)]:

a. Will prevent the migration of hazardous constituents into the groundwater or surface water at least as effectively as the liners and leachate collection and removal system; and

b. Will allow detection leaks of hazardous constituents through the top liner at

least as effectively.

15. Exemption from Double-Liner Requirements for Monofills [264.301(e)]

Owners or operators of hazardous waste monofills will be exempted from the double-liner requirements if the Commission finds, based on a demonstration by the owner or operator, that alternative design and operating practices, together with location characteristics are at least as effective as a double liner in preventing migration of hazardous constituents to the groundwater or surface water. If an exemption is sought, submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time.

16. Above-grade Benefits

The engineering report must evaluate the benefits, if any, associated with the construction of the landfill above existing grade at the proposed site, the costs associated with the above-grade construction, and the potential adverse effects, if any, which would be associated with the above-grade construction. [TX. Health and Safety Code 361.108]

17. Feasibility Study - Applicable to New Hazardous Waste Landfills or Areal Expansions of Existing Hazardous Waste Landfill

In accordance with the Health and Safety Code Section 361.106 and 30 TAC Section 335.205(a)(2), provide a feasibility study demonstrating that there is no practical, economic, and feasible alternative that is reasonably available to manage the types and classes of hazardous wastes to be disposed of at a proposed new hazardous waste landfill or the areal expansion of an existing hazardous waste landfill.

H. Incinerators

Engineering Report for Combustion Units

For hazardous waste combustion unit which are subject to regulation by 40 CFR Part 63, Subpart EEE, the requirements 30 TAC Chapter 305 and Subchapters I and Q do not apply when the unit becomes subject to Resource Conservation and Recovery Act (RCRA) permit requirements after October 12, 2005 (i.e., new unit), or no longer apply when an owner or operator of an existing hazardous waste management unit demonstrates compliance with the air emission standards and limitations in 40 Code of Federal Regulations (CFR) Part 63, Subpart EEE, except for the following:

1. Those provisions the Executive Director determines are necessary to comply with 40 CFR §264.345(a) and 40 CFR §264.345(c) for Phase I sources or 40 CFR §266.102(e)(1) and (2)(iii) for Phase II sources if the permittee or applicant elects to comply with any of the options listed in 40 CFR §270.235(a) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events;

2. Those standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals that a Phase II area source elects to comply with in 40 CFR §§266.105, 266.106, and 266.107;

3. Those standards for particulate matter in 40 CFR 264.343(c) remain in effect for a Phase I source incinerator that elects to comply with the alternative to the

particulate matter standard under 40 CFR 63.1206(b)(14) and 63.1219(e); and

4. Those provisions that the Executive Director may apply in 30 TAC Chapter 305, Subchapters I and Q, on a case-by-case basis. The Executive Director may require a permittee or an applicant to submit information in order to establish permit conditions under §305.50(a)(15) or (16) and §305.127(1)(B)(iii) or (4)(A) (i.e., risk-based permit conditions).

For hazardous waste combustion units subject to regulation by 40 CFR Part 63, Subpart EEE, some of the information requested in Sections V.H and V.I. will not be applicable for new units or existing units which have submitted a Notification of Compliance in accordance with 40 CFR 63.1207(j) and 63.1210(d), received a Finding of Compliance pursuant to 40 CFR 63.1206(b)(3), and have the associated RCRA permit conditions removed from the permit. Information which is not applicable or no longer applicable should not be included in the Part B application. *[Please note that the TCEQ will require a Finding of Compliance be made prior to modifying the permit by deleting redundant operating parameter limits and standards for the combustion units. Until such time as the permit is modified to delete the redundant RCRA-based operating parameter limits and standards in the permit or the permit is terminated or revoked, the permittee must comply with the RCRA-based conditions specified in the permit. More stringent risk-based permit conditions will remain in the RCRA permit.]*

For the exceptions listed in Items 1.-4., the owner and operator must provide the applicable information requested in the Part B permit application and any additional information required by the Executive Director to establish permit conditions.

As applicable, provide an engineering report which includes all of the information specified in 30 TAC 305.171-305.176, 40 CFR 264.340, 264.342-264.346, 264.347(a), and 270.19. In addition, the Executive Director may require additional information to address the requirements in 30 TAC 305.50(a)(15).

Note: Please review the information provided in the section above entitled "Engineering Report for Combustion Units" and 40 CFR 270.19(e) to determine applicability of standards and associated requirements in 40 CFR Part 264, Subpart O. If the permit contains risk-based permit conditions, please ensure that all applicable supporting information is included in the engineering report.

1. Complete Table V.H.1 - Incinerators and list the incinerators covered by this application and list the waste managed in each unit.

2. Complete Table V.H.2 - Incinerator Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems for each Incinerator.

3. Complete Table V.H.3 - Maximum Constituents Feed Rate for each Incinerator.

4. Complete Table V.H.4 - Maximum Allowable Emission Rates for each Incinerator.

5. For use during the shakedown period, the trial burn period and the period after completion of the initial trial burn, complete Table V.H.5 - Incinerator Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff-Short-Term Operation for each new or modified Incinerator.

6. If an incinerator will manage reactive or incompatible waste, as indicated on Table V.H.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17.

7. If an incinerator will manage F020, F021, F022, F023, F026, and F027 waste, as

indicated on Table V.H.1, the DRE requirement is 99.9999%.

8. If a trial burn for a modified unit and Comprehensive Performance Test under 40 CFR Part 63, Subpart EEE (HWC MACT) (for all new and modified units) will be performed, designate one or more of the 40 CFR 261 Appendix VIII organic compounds present in the wastes to be incinerated as Principal Organic Hazardous Constituents (POHCs). Selection will be based upon the degree of difficulty of incineration of these compounds and upon their concentration or mass in the waste feed. These POHCs will be used to determine the destruction and removal efficiency (DRE) specified in the performance standards of 40 CFR 264.343 and HWC MACT. In addition, complete Table V.H.8 - Principal Organic Hazardous Constituents.

9. Submit a Quality Control/Quality Assurance Plan for all sampling, analysis, and monitoring activities which will occur in conjunction with the trial burn.

10. As applicable, facilities with existing permits may request that the Executive Director to address permit conditions that minimize emissions from startup, shutdown, and malfunction events in accordance with the options under 40 CFR 270.235 when requesting the removal of permit conditions that are no longer applicable according to 30 TAC 305.175. Please provide the relevant information needed to process the requested option to minimize emissions identified in 40 CFR 270.235(1)(a)(i)-(iii). (30 TAC 305.176)

I. Boilers and Industrial Furnaces

Engineering Report for Combustion Units

For hazardous waste combustion unit which are subject to regulation by 40 CFR Part 63, Subpart EEE, the requirements 30 TAC Chapter 305 and Subchapters I and Q do not apply when the unit becomes subject to Resource Conservation and Recovery Act (RCRA) permit requirements after October 12, 2005 (i.e., new unit), or no longer apply when an owner or operator of an existing hazardous waste management unit demonstrates compliance with the air emission standards and limitations in 40 Code of Federal Regulations (CFR) Part 63, Subpart EEE, except for the following:

1. Those provisions the Executive Director determines are necessary to comply with 40 CFR §264.345(a) and 40 CFR §264.345(c) for Phase I sources or 40 CFR §266.102(e)(1) and (2)(iii) for Phase II sources if the permittee or applicant elects to comply with any of the options listed in 40 CFR §270.235(a) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events;

2. Those standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals that a Phase II area source elects to comply with in 40 CFR §§266.105, 266.106, and 266.107;

3. Those standards for particulate matter in 40 CFR 264.343(c) remain in effect for a Phase I source incinerator that elects to comply with the alternative to the particulate matter standard under 40 CFR 63.1206(b)(14) and 63.1219(e); and

4. Those provisions that the Executive Director may apply in 30 TAC Chapter 305, Subchapters I and Q, on a case-by-case basis. The Executive Director may require a permittee or an applicant to submit information in order to establish permit conditions under §305.50(a)(15) or (16) and §305.127(1)(B)(iii) or (4)(A) (i.e., risk-based permit conditions).

For hazardous waste combustion units subject to regulation by 40 CFR Part 63, Subpart EEE, some of the information requested in Sections V.H and V.I. will not be applicable for new units or existing units which have submitted a Notification of Compliance in accordance with 40 CFR 63.1207(j) and 63.1210(d), received a Finding of Compliance pursuant to 40 CFR 63.1206(b)(3), and have the associated RCRA permit conditions removed from the permit. Information which is not applicable or no longer applicable should not be included in the Part B application. *[Please note that the TCEQ will require a Finding of Compliance be made prior to modifying the permit by deleting redundant operating parameter limits and standards for the combustion units. Until such time as the permit is modified to delete the redundant RCRA-based operating parameter limits and standards in the permit or the permit is terminated or revoked, the permittee must comply with the RCRA-based conditions specified in the permit. More stringent risk-based permit conditions will remain in the RCRA permit.]*

For the exceptions listed in Items 1.-4., the owner and operator must provide the applicable information requested in the Part B permit application and any additional information required by the Executive Director to establish permit conditions.

As applicable, provide an engineering report which includes all of the information specified in 30 TAC 305.50(a)(13), 305.571-573, 40 CFR 266.100 and 266.102 (as incorporated by reference in 30 TAC 335.221 through 335.225), 266.104-266.112, and 270.22. In addition, the Executive Director may require additional information to address the requirements in 30 TAC 305.50(a)(15).

Note: Please review the information provided in the section above entitled "Engineering Report for Combustion Units" and 40 CFR 270.22 to determine applicability of standards and associated requirements in 40 CFR Part 266, Subpart H. Area sources that elect to comply with the standards and associated requirements of 40 CFR 266.105, 266.106, and 266.107 should address those elected standards and requirements in the engineering report. If the permit contains risk-based permit conditions, please ensure that all applicable supporting information is included in the engineering report.

1. Complete Table V.I.1 - Boilers and Industrial Furnaces and list the boilers and/or industrial furnaces covered by this application to be permitted and list the waste managed in each unit.
2. Complete Table V.I.2 - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems for each unit.
3. Complete Table V.I.3 - Maximum Constituent Feed Rate for each unit.
4. Complete Table V.I.4 - Maximum Allowable Emission Rates for each unit.
5. For use during the shakedown period, trial burn period and the period after completion of the initial trial burn, complete Table V.I.5 - Boiler and Industrial Furnace Permit Conditions, Monitoring, and Automatic Waste Feed Cutoff Systems-Short-Term Operation for each new or modified unit.
6. If a boiler or industrial furnace will manage reactive or incompatible waste, as indicated on Table V.I.1, describe in the engineering report the procedures used to ensure compliance with 40 CFR 264.17.
7. If a boiler and industrial furnace will manage F020, F021, F022, F023, F026, and F027 waste, as indicated on Table V.I.1, the DRE requirement is 99.9999%.
8. If a trial burn for modified units and Comprehensive Performance Test under 40 CFR Part 63, Subpart EEE (HWC MACT) (for all new and modified units) will be performed, designate one or more of the 40 CFR 261 Appendix VIII organic compounds present in the wastes to be incinerated as Principal Organic Hazardous Constituents (POHCs). Selection will be based upon the degree of difficulty of incineration of these compounds and upon their concentration or mass in the waste feed. These POHCs will be used to determine the destruction and removal efficiency (DRE) specified in the performance standards of 40 CFR 266.104 and HWC MACT. In addition, complete Table V.I.8 - Principal Organic Hazardous Constituents.
9. Submit a Quality Control/Quality Assurance Plan for all sampling, analysis, and monitoring activities.
10. As applicable, facilities with existing permits may request that the Executive Director to address permit conditions that minimize emissions from startup, shutdown, and malfunction events in accordance with the options under 40 CFR 270.235 when requesting the removal of permit conditions that are no longer applicable according to 30 TAC 305.571(b). Please provide the relevant information needed to process the requested option to minimize emissions identified in 40 CFR 270.235(1)(a)(i)-(iii). [30 TAC 305.572(a)(6)]

J. Drip Pads

Provide an engineering report which includes all of the information specified in 40 CFR 264.570-573 and 270.26

1. Complete Table V.J.1. - Drip Pads and list the drip pads, covered by this application, to be permitted. List the N.O.R. unit number, the waste managed in each unit, the rated capacity of each unit, and the overall dimensions of the unit (including perimeter curb or berm height) that will be in contact with the waste.

2. For either new drip pads or existing drip pads for which the owner/operator elects to comply with the synthetic liner requirement of 40 CFR 264.573(b), please complete Table V.J.2. - Drip Pad Synthetic Liner System.

3. In the engineering report, describe the design, installation, construction, and operation of the liner and leakage collection system. The description must demonstrate that the liner system will prevent discharge to the land, groundwater, and surface water. The following analyses should be included as attachments to the engineering report (A QAPP should be included in the report to ensure that each analysis is performed appropriately):

For artificial liners:

a. Seaming method
b. Surface preparation method
c. Tensile Strength
d. Impact Resistance
e. Compatibility Demonstration
f. Foundation Design (including Settlement Potential, Bearing Capacity and Stability, and Potential for Bottom Heave Blow-out)

For Leakage Collection System

g. Capacity of the system:
   (1) rate of leachate removal
   (2) capacity of sumps
   (3) thickness of mounding and maximum hydraulic head
h. Pipe Material and Strength
i. Pipe Network Spacing and Grading
j. Collection Sump(s) Material and Strength
k. Drainage Media Specifications and Performance
l. Analyses showing that pipe and pipe perforation size will prevent clogging and allow free liquid access to the pipe.
m. Compatibility Demonstration

K. Miscellaneous Units

A miscellaneous unit is a unit other than a container, tank, incinerator, boiler, industrial furnace, landfill, surface impoundment, waste pile, underground injection well, land treatment area, drip pad, or unit eligible for an R, D & D permit that is used to process, store, or dispose of hazardous waste.

For each miscellaneous unit for which an operating permit is sought, provide an engineering report which includes all of the information specified in 40 CFR 264.600-264.602, and 270.23.

1. Complete Table V.K - Miscellaneous Units and list the miscellaneous units covered by this application. List the waste managed in each unit and the rated capacity or size of the unit. If the information requested is not applicable, an explanation must be submitted.

2. Provide any other information which is descriptive of the relationship between the miscellaneous unit and the environment. Application information may include design requirements of 30 TAC 305 and 335, 40 CFR Part 264 Subparts I through O, and Part 270 that are appropriate for the miscellaneous unit or portions of the unit being permitted.

3. For a unit which involves combustion, please provide emissions data or a trial burn plan. Tables V.H.1-5 for incinerators or Tables V.I.1-5 for boilers and industrial furnaces may be adapted as appropriate to provide operation, monitoring, and emission information for a miscellaneous combustion unit.

L. Containment Buildings

Complete Table V.L. - Containment Buildings and list the containment buildings covered by this application to be permitted. List the N.O.R. unit number, whether the unit is for storage and/or processing, the waste or debris managed in each unit, the rated capacity of each unit, and the overall dimensions of the unit (including containment wall height) that will be in contact with the waste or debris.

TABLE OF APPENDICES

APPENDIX	TITLE
V.A	General (Table V.A and General Engineering Report)
V.B	Container Storage Areas (Not Applicable)
V.C	Tanks and Tank Systems (Table V.C and T-F-9 Tank Engineering Report)
V.D	Surface Impoundments (Not Applicable)
V.E	Waste Piles (Not Applicable)
V.F	Land Treatment Units (Not Applicable)
V.G	Landfills (Not Applicable)
V.H	Incinerators (Table V.H.1 and R-F-70 Incinerator Engineering Report)
V.I	Boilers and Industrial Furnaces (Not Applicable)
V.J	Drip Pads (Not Applicable)
V.K	Miscellaneous Units (Not Applicable)
V.L	Containment Buildings (Not Applicable)

Appendix V.A:
GENERAL
(TABLE V.A AND GENERAL ENGINEERING REPORT)

Table V.A. - Facility Waste Management Handling Units

TCEQ Permit Unit No. [1]	Unit Name	NOR No. [1]	Unit Description [2]	Capacity	Unit Status [3]
1	T-F-9 Tank	010	Horizontal, cylindrical, liquid injection incinerator	30,000 gal	Active
3	R-F-70 Incinerator	023	Two-stage, horizontal, liquid injection incinerator	38.9 MMBtu/hr	Active

[1] Permitted Unit No. and NOR No. cannot be reassigned to new units or used more than once and all units that were in the Attachment D of a previously issued permit must be listed.
[2] Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.
[3] If a unit has been transferred, the applicant should indicate which facility/permit it has been transferred to in the Unit Description column of Table V.A.

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CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

GENERAL ENGINEERING REPORT

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This general engineering report provides the information required by 40 CFR §§ 270.14(b)(8) and (b)(10). The following sections address prevention of hazards and traffic patterns.

2.0 PREVENTION OF HAZARDS

In accordance with 40 CFR § 270.14(b)(8), this section provides information on the prevention of hazards from the processing and storage areas of the Conroe Plant. Huntsman will use the appropriate procedures, structures, or equipment to prevent adverse conditions in the hazardous waste management areas.

2.1 UNLOADING PROCEDURES

Most of the hazardous liquid waste is transferred via process piping to the T-F-9 Tank, and most of the non-hazardous liquid waste is transferred via process piping to the T-E-40 Tank and then to the T-F-2 Tank. The wastes are pumped directly from the tanks to the R-F-70 Incinerator.

Occasionally, wastes may be loaded/unloaded from the tanks via tank wagons. Huntsman maintains a written procedure for loading and unloading waste. Prior to transfer of waste to the tank, the tank wagon is connected via a dry disconnect to the pump and a vent recovery line is connected to the top of the tank wagon. When waste transfer begins, the operator checks the tank level gauge and the vent line pressure gauge to ensure that all valves are properly positioned.

2.2 RUN-OFF

A concrete dike surrounds the T-F-9 Tank, and a concrete curb surrounds the R-F-70 incinerator to control storm water run-on and run-off. The T-F-9 Tank is located within a 50-inch high dike that is of sufficient size to contain the entire contents of this tank, leaving approximately eleven inches of freeboard. The T-F-9 Tank freeboard will accommodate a 25-year, 24-hour rain event, which is 11.6 inches of rainfall for the Conroe area.

All water that falls on the concrete slabs within the process units flows via the sloped slabs to valved swap-boxes. This water includes storm water run-off, slab washdown water, and water discharging to

the slab during unit rinse-outs and other equipment drainage during maintenance. This water is managed either onsite or offsite in authorized waste management units. Stormwater that falls outside process units flows via ditches either to the wastewater treatment ponds or to permitted stormwater outfalls.

2.3 Water Supplies

The likelihood of groundwater contamination resulting from a waste spill is relatively small due to the concrete surfaces referenced above. Also, the small volume of waste subject to potential spillage and the quick response time for such an accident mitigate against the possibility of groundwater contamination. Small spills are addressed using the spill control equipment identified in Table III.E.3 in Section III of the Part B Permit Application. Larger spills would be collected in the swap-boxes and sent to onsite or offsite treatment.

The concreted areas around the incinerator is inspected daily by operations, as indicated in Table III.D in Section III of the Part B Permit Application. These inspections ensure that any spills are detected quickly. The tank secondary containment area is inspected daily for leaks and cracks.

2.4 Equipment and Power Failure

Immediately upon loss of power, all process valves associated with the R-F-70 Incinerator will fail to a safe position. This includes isolation of all natural gas to the incinerator and cutoff of all liquid waste feed to the incinerator. The distributive control system (DCS) for the incinerator is connected to an uninterruptible power supply (UPS). The UPS provides adequate power for the DCS and critical instruments to complete an orderly shutdown of the incineration system.

2.5 Procedures to Prevent Accidental Ignition

The liquid wastes are managed as flammable liquids. All sources of ignition are excluded when activities that could release flammable vapors are undertaken. Smoking is not permitted within the Conroe Plant except in designated areas. ''No Smoking" signs are posted at all entries to the facility.

2.6 Procedures to Minimize Releases to the Atmosphere

The T-F-9 Tank and the R-F-70 Incinerator are operated in accordance with good engineering practices to minimize releases to the atmosphere. Most liquid wastes are piped directly from process equipment to the T-F-9 Tank, which minimizes the potential for spills. The liquid waste is pumped from the T-F-9 Tank to the R-F-70 Incinerator through dedicated lines. The combustion chamber is sealed to minimize fugitive emissions.

Prevention of releases of hazardous waste constituents to the atmosphere is accomplished by a number of measures including:

- Use of a dry disconnect and a vent recovery line between a tank wagon and the T-F-9 Tank during any hazardous waste loading/unloading operations;
- Nitrogen blanketing of the T-F-9 Tank;
- Use of a scrubber on the T-F-9 Tank vent (closed vent system) to control displacement emissions;
- Periodic inspections and equipment monitoring; and
- Operation of the R-F-70 Incinerator in compliance with all permit and regulatory conditions.

2.7 Personal Protection Equipment

During the handling of the liquid wastes, personal protective equipment is worn (if the potential for exposure exists). Personal protective equipment consists of chemical goggles, coveralls (for minimal exposures), impervious suits, gloves, and rubber boots. Chemical resistant gloves are required. If the potential for vapor, mist, or dust generation exists, a properly fitted Mine Safety and Health Administration (MSHA) approved or National Institute for Occupational Safety and Health (NIOSH) approved respirator with appropriate cartridges is worn. For large spills, tank cleaning, or other confined-space entry, a supplied-air respiratory system is required.

3.0 Traffic Patterns

In accordance with 40 CFR § 270.14(b)(10), this section provides information on the traffic patterns in and around the hazardous waste management areas at the Conroe Plant.

Traffic within the plant consists of supervision vehicles, delivery trucks, and construction equipment. Within the fenced areas of the plant, all employee vehicles are restricted to designated parking lots. Huntsman company vehicles have access to all internal roads. The number of vehicles on the plant roads varies from none to moderate depending upon time of day and the area.

Signs are posted within the plant to aid in traffic control and to prevent misrouting of vehicles. Traffic speed is controlled through the use of stop signs and speed limit signs.

All facility roadways are constructed in accordance with Huntsman standards. The site roads meet the load bearing requirements of Texas highways. Roadway capacities are sufficient for all types of vehicles that typically enter the areas surrounding the tank and incinerator, including emergency vehicles.

4.0 Figures

In accordance with 40 CFR § 270.14(b)(19), this report contains a U.S. Geological Survey (USGS) topographic map of the site and an area of at least 1,000 feet around it in all directions. This map shows the topographic contours at an interval adequate to clearly show the pattern of surface water flow in

the vicinity of and from each operational unit of the site. 40 CFR § 270.14(b)(19) requires that a map scale of one inch equals no more than 200 feet. Due to the size of the Conroe Plant, using the required scale would necessitate a figure larger than 36-inch by 48-inch figures. Therefore, Huntsman is requesting a variance from 40 CFR § 270.14(b)(19) to allow for the use of one inch equals 350 feet scale. This scale is sufficient to clearly show contours and the pattern of surface water flow in the vicinity of and from each operational unit of the facility. This scale has been used for the required U.S. Geological Survey (USGS) map (Figure V.A.2).

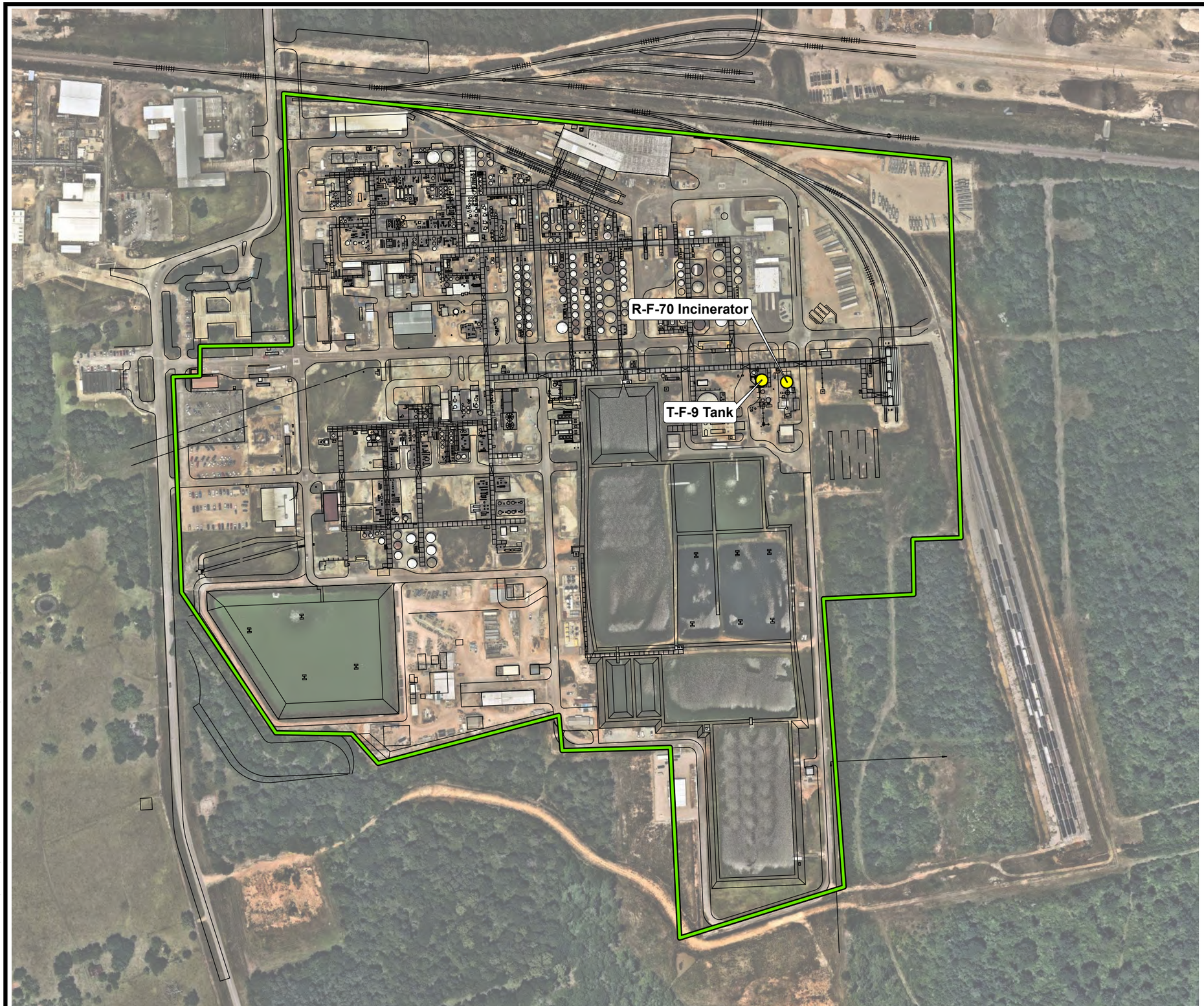
For clarity of the information presented, multiple figures have been provided to satisfy the general requirements of 40 CFR § 270.14(b)(19). These figures, when combined:

- Indicate the map's orientation, scale, and date;
- Show the legal boundaries of the hazardous waste management facility;
- Show all buildings, treatment, storage, and disposal operations, and other structures within the property boundary;
- Identify all operational units within the facility where hazardous waste is or will be treated, stored, or disposed;
- Show all access control points (*e.g.,* fences and gates);
- Identify all nearby surface waters;
- Define the 100-year floodplain area;
- Show stormwater drainage systems;
- Identify surrounding land use (*e.g.,* residential, commercial, agricultural, and recreational);
- Identify all onsite and offsite wells; and
- Provide a wind rose showing the predominant wind directions.

The following general maps and figures are included in Attachment A:

- Figure V.A.1 – Facility Plot Plan;
- Figure V.A.2 – 7.5-Minute Topographical Map;
- Figure V.A.3 – FEMA Flood Map;
- Figure V.A.4 – General Land Use Map;
- Figure V.A.5 – Wind Rose;
- Figure V.A.6 – Well Location Map;
- Figure V.A.7 – Fences and Gates; and
- Figure V.A.8 – Stormwater Drainage System.

Attachment A:
MAPS AND FIGURES



Legend

- Facility Boundary
- Hazardous Waste Units

0 150 300
FEET

1" = 300 FEET
1:3,600

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CONROE, TEXAS

FACILITY PLOT PLAN

DRAWN BY: L WILSON	SCALE:	PROJ. NO.	081-24-01
CHECKED BY: H MCHALE	AS NOTED		V.A.1 Facility Plot Plan
APPROVED BY: H MCHALE	DATE PRINTED:	**FIGURE V.A.1**	
DATE: August 2025	*8/29/2025*		

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840 First Ave., Suite 400
King of Prussia, PA 19406

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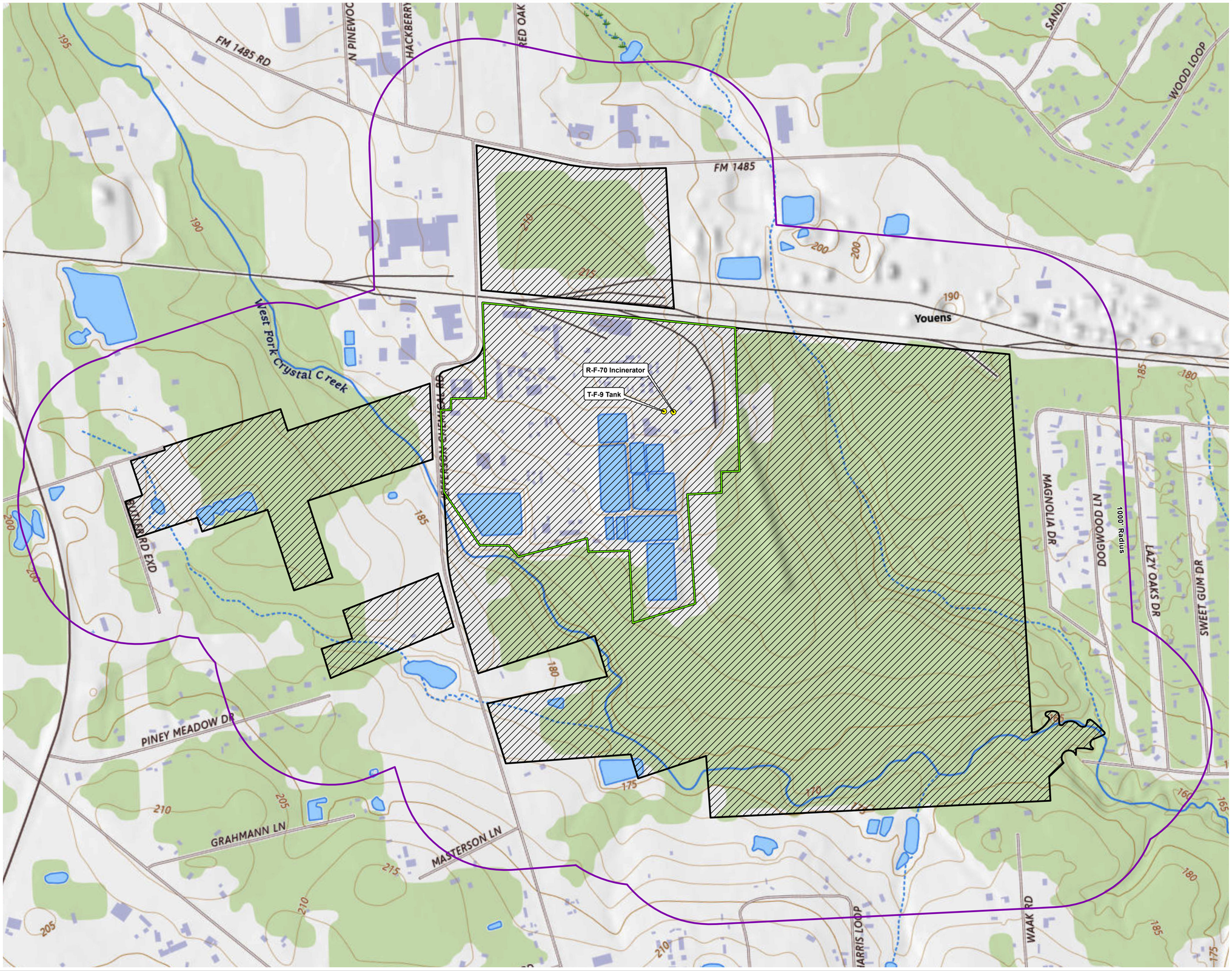

Legend

- Huntsman Property Boundary
- Facility Boundary
- Hazardous Waste Units
- 1000' Radius

Source:
USGS Topographic Quadrangles 7.5 Minute Series:
Conroe, TX 2022; Cut and Shoot, TX 2022

0 350 700 FEET

1" = 350 FEET
1:4,200

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

7.5-MINUTE TOPOGRAPHICAL MAP

DRAWN BY:	L WILSON	SCALE:	PROJ. NO. 081-24-01
CHECKED BY:	H MCHALE	AS NOTED	V.A.2 7.5-Minute Topographical Map
APPROVED BY:	H MCHALE	DATE PRINTED: 9/2/2025	**FIGURE V.A.2**
DATE:	September 2025		

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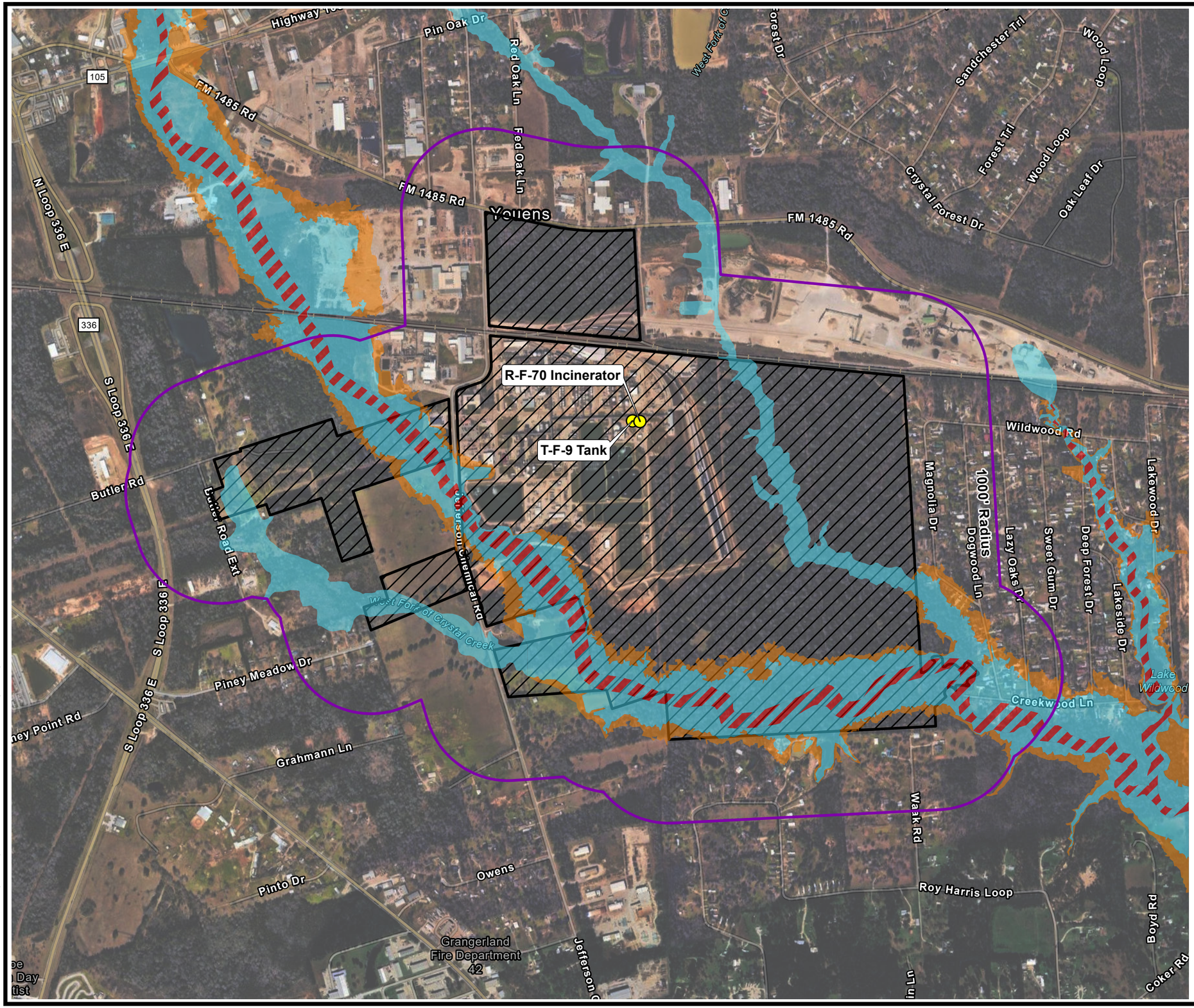

Legend

- Huntsman Property Boundary
- 1000' Radius
- Hazardous Waste Units

Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard

Flood Hazard Zones Source:
FEMA National Flood Hazard Layer (NFHL). Data streamed through GIS Rest Service, July 2025

0 500 1,000 FEET

1" = 1,000 FEET
1:12,000

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CONROE, TEXAS

FEMA FLOOD MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE		AS NOTED	FILE NO.	V.A.3 FEMA Flood
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE V.A.3**	
DATE:	August 2025	*8/29/2025*			

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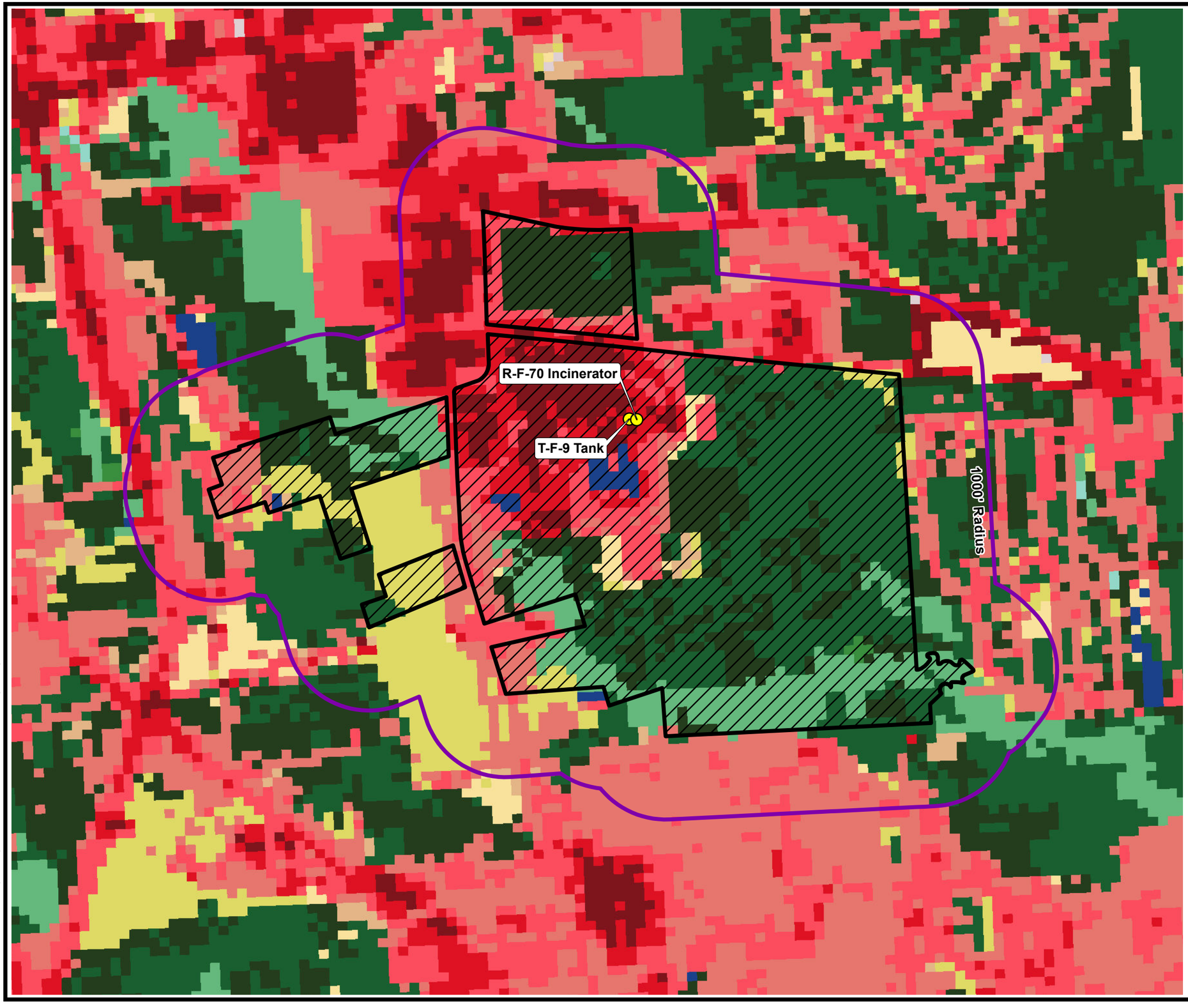

Legend

- Huntsman Property Boundary
- 1000' Radius
- Hazardous Waste Units

USA NLCD Land Cover

- Open Water
- Developed Open Space
- Developed Low Intensity
- Developed Medium Intensity
- Developed High Intensity
- Barren Land
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Scrub
- Grassland/Herbaceous
- Pasture/Hay
- Woody Wetlands
- Emergent Herbaceous Wetlands

Data Source:
National Land Cover Database (NLCD), updated April 11, 2025.

N

0 500 1,000 FEET

1" = 1,000 FEET
1:12,000

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CONROE, TEXAS

GENERAL LAND USE MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE		AS NOTED	FILE NO.	V.A.4 General Land Use
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE V.A.4**	
DATE:	August 2025	*8/29/2025*			

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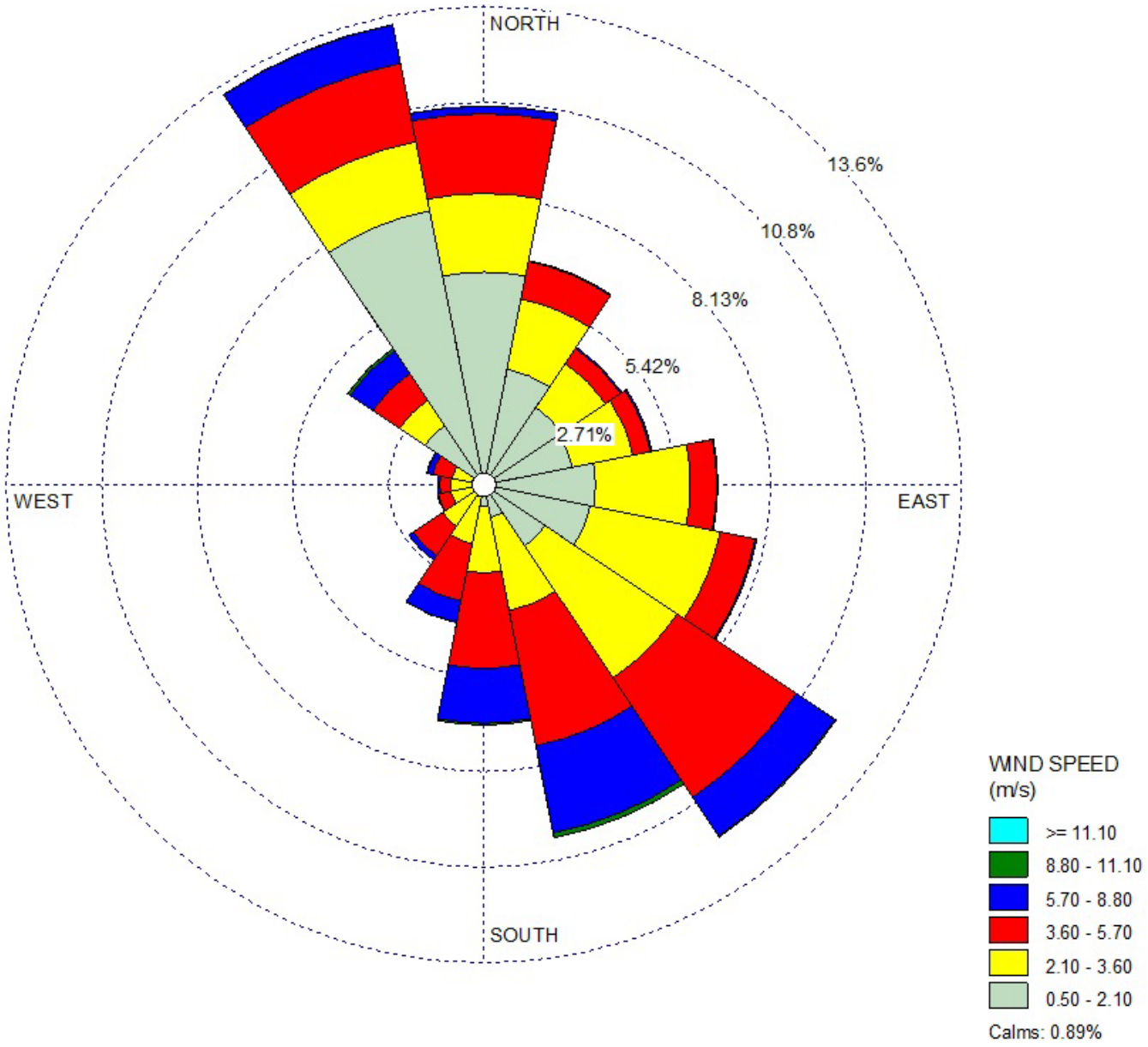
WIND ROSE PLOT:
Station #53902

DISPLAY:
Wind Speed
Direction (blowing from)



DATA PERIOD:
Start Date: 01/01/2017 – 00:00
End Date: 12/31/2021 – 23:59

CALM WINDS:
0.89%

AVG. WIND SPEED:
3.01 m/s

TOTAL COUNT:
43749 hrs.

HUNTSMAN PETROCHEMICAL LLC
CONROE, TEXAS

WIND ROSE

NOTES:
WRPLOT View –
Lakes Environmental Software

FIGURE V.A.1.5

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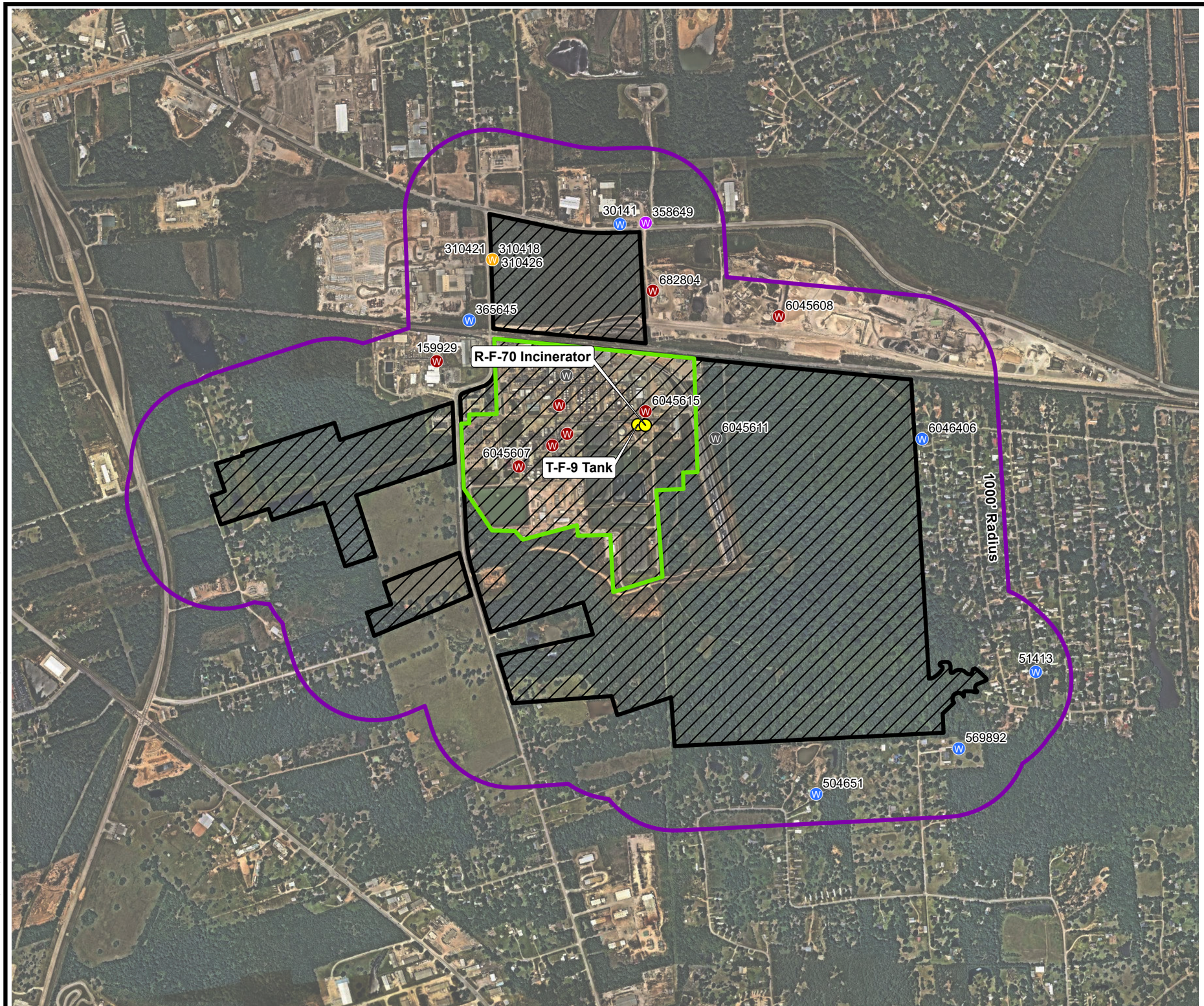

Legend

- Huntsman Property Boundary
- Facility Boundary
- Hazardous Waste Units
- 1000' Radius

TWDB Well, ID#

- Domestic / Public Supply
- Industrial
- Monitor
- Plugged or Destroyed
- Test Well

Data Source:
TWDB Wells - Texas Water Development Board GIS Database (June 2005)

N

0 500 1,000 FEET

1" = 1,000 FEET
1:12,000

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CONROE, TEXAS

WELL LOCATION MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE		AS NOTED	FILE NO.	V.A.6 Well Location Map
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE V.A.6**	
DATE:	September 2025		*9/4/2025*		

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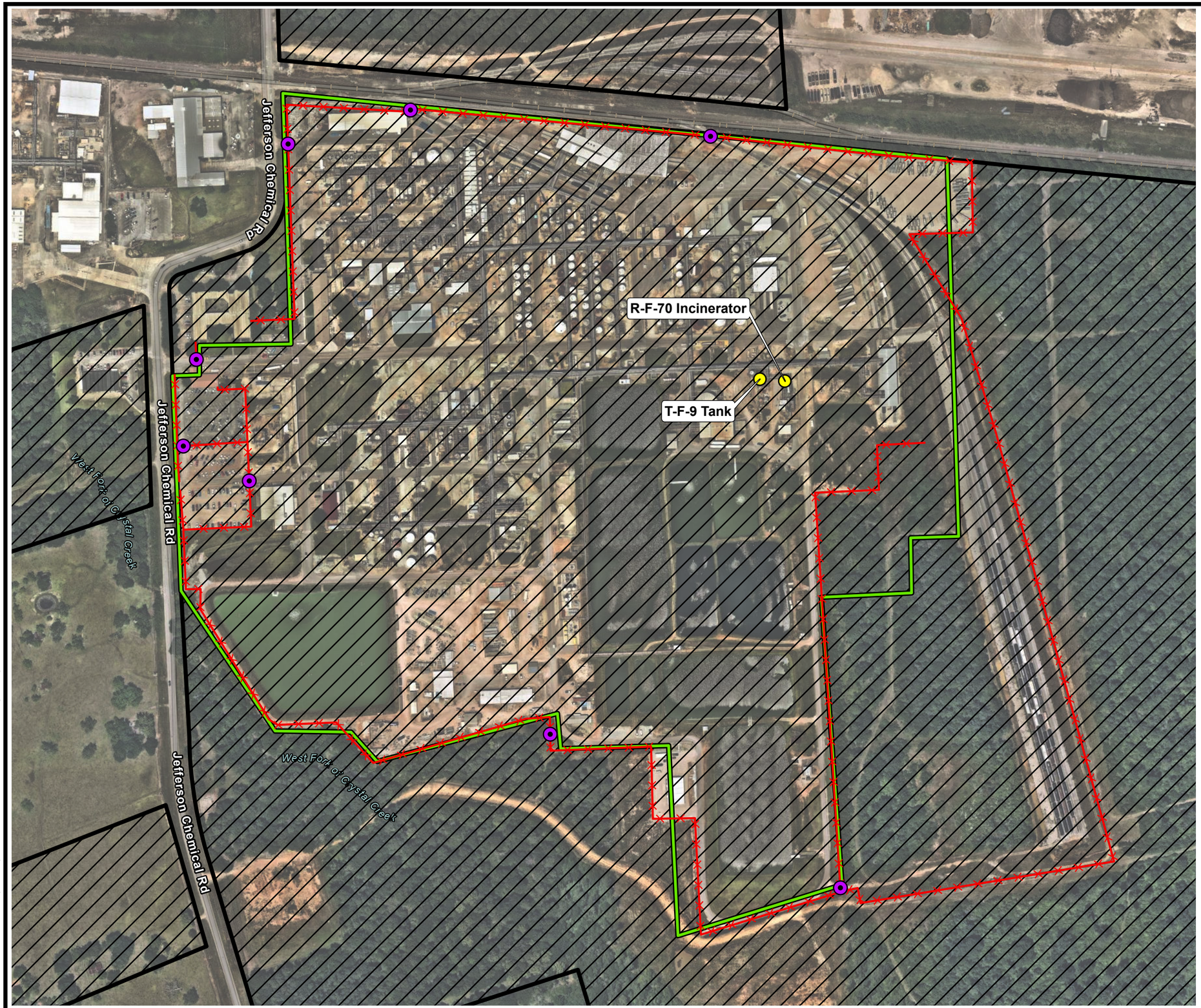

Legend

- Huntsman Property Boundary
- Facility Boundary
- Hazardous Waste Units
- Fenceline
- Gate

N

0 150 300
FEET

1" = 300 FEET
1:3,600

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

FENCES AND GATES MAP

DRAWN BY:	L WILSON	SCALE:		PROJ. NO.	081-24-01
CHECKED BY:	H MCHALE	AS NOTED		FILE NO.	V.A.7 Fences and Gates
APPROVED BY:	H MCHALE	DATE PRINTED:		**FIGURE V.A.7**	
DATE:	August 2025	*8/29/2025*			

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Legend

- Huntsman Property Boundary
- Facility Boundary
- Hazardous Waste Units
- Outfall Location
- Flow Direction
- Stormwater Drainage Areas

N

0 150 300 FEET

1" = 300 FEET
1:3,600

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

STORMWATER DRAINAGE SYSTEM

DRAWN BY: L WILSON	SCALE:	PROJ. NO.	081-24-01
CHECKED BY: H MCHALE	AS NOTED		V.A.8 Stormwater Drainage System
APPROVED BY: H MCHALE	DATE PRINTED:	**FIGURE V.A.8**	
DATE: September 2025	*9/3/2025*		

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Appendix V.C:
TANKS AND TANK SYSTEMS
(TABLE V.C AND T-F-9 TANK ENGINEERING REPORT)

Table V.C. - Tanks and Tank Systems

Permit Unit No.	Tank	N.O.R. No.	Storage and/or Processing	Waste Nos.[1]	Rated Capacity	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable, Reactive, or Incompatible waste (state all that apply)	Unit Status
1	T-F-9 Tank	010	Storage	1,2,3, 4, 5	30,000 gal	16 ft D x 22 ft H	38,400 gal	Ignitable	Active

1. from Table IV.B, first column

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CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

ENGINEERING REPORT: T-F-9 TANK

DECEMBER 2025

REVISED: JANUARY 2026

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LIST OF ATTACHMENTS

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

40 CFR § 270.16 requires that Huntsman submit information about the T-F-9 Tank with this permit application to demonstrate compliance with the standards contained in 40 CFR §§ 264.190 through 200.

The remaining sections of this report provide the following information:

- Section 2.0 describes the equipment;
- Section 3.0 discusses the hazardous characteristics of the waste streams;
- Section 4.0 discusses the secondary containment;
- Section 5.0 discusses requirements for ignitable, reactive, and incompatible wastes;
- Section 6.0 describes air emission controls;
- Section 7.0 addresses the certification requirements and inspections; and
- Attachment A includes a secondary containment figure and calculations.

2.0 EQUIPMENT DESCRIPTION

Huntsman operates one hazardous waste storage tank, identified as the T-F-9 Tank. The tank was constructed in 1988. The location of the tank is shown on Figure V.A.1, Facility Plot Plan, in Attachment A of the General Engineering Report in Appendix V.A of the of the Part B Permit Application. This sections provides information on the T-F-9 Tank required by 40 CFR §§ 270.16(b) through (e).

The T-F-9 Tank is a non-pressurized, vertical, cylindrical vessel with a bulbed bottom and slightly sloped steel top cover. The tank is equipped with four 16-inch wide interior wall baffles, a centered vertical rotating agitator, a fixed roof, two manways, and numerous flanges to accommodate process connections, venting, level indication and control instrumentation.

2.1 DIMENSIONS AND CAPACITY

The T-F-9 Tank is described in Table 1.

TABLE 1
TANK DIMENSIONS AND CAPACITY

TANK ID	DESCRIPTION	INSTALLATION DATE	DIAMETER (FEET)	HEIGHT (FEET)	CAPACITY (GALLONS)	MATERIAL OF CONSTRUCTION
T-F-9	Non-pressurized vertical cylindrical tank	1988	16	22	30,000	Carbon steel

2.2 FEED SYSTEMS, SAFETY CUTOFF, BYPASS SYSTEMS, AND PRESSURE CONTROLS

The T-F-9 Tank receives waste materials from various production processes. This tank is operated at slight positive pressure with nitrogen blanketing. During filling operations, pressure relieves through a pressure relief valve, which vents to a wet scrubber for emission control. During waste removal, nitrogen is automatically supplied in response to pressure drop to fill the void.

Process connections to Tank T-F-9 include:

- A submerged fill line for all waste transfers to the tank;
- A nitrogen supply line that maintains a nitrogen blanket in the head space of the tank;
- A vent water scrubber to remove contaminants from vapors displaced from the tank, which is connected by a vent line that includes a pressure relief valve that is set to open at a pressure slightly greater than the normal nitrogen blanket pressure;
- A pressure-vacuum relief valve with pressure settings slightly higher than the pressure relief valve on the vent scrubber line and slightly below atmospheric to prevent a vacuum in the tank; and

- A level indicator that includes remote level indication and that is interlocked with a high level alarm and automatic cutoff valves on lines feeding the tank.

Prevention of spills from the T-F-9 Tank and ancillary equipment is accomplished by several means, including:

- A level sensing device that provides an electrical signal to a remote level indicator, which is monitored by facility operators, and that is linked to a controller that automatically sounds an alarm and shuts off the waste feed to the tank should the level in the tank reach preset high-high levels;
- Daily inspections to detect signs of corrosion, leaks, or spills; and
- Periodic inspections and monitoring of equipment as required by 40 CFR Part 264 Subpart BB.

Should a spill occur within the secondary containment system, the spilled material would migrate to the sump and swap box due to the sloped slab of the containment system. The discharge line from the swap box includes a valve that remains closed except when transferring accumulated liquid (typically rain water), thus ensuring that a release to the secondary containment system will be contained. Because the T-F-9 Tank secondary containment area is inspected at least daily, any leak would be detected within 24 hours.

2.3 CORROSION PROTECTION

In accordance with 40 CFR § 264.191(b)(3), the T-F-9 Tank and connecting piping are constructed of carbon steel, which provides appropriate corrosion resistance for the wastes handled. The exterior of the T-F-9 Tank is painted using approved techniques to inhibit external corrosion.

2.4 TANK DIAGRAMS

The following figures for the T-F-9 Tank are included in Section XIII of the of the Part B Permit Application (Confidential Information):

- General Arrangement Drawing No. B082232;
- Foundation Plan Drawing No. F082233; and
- Process and Instrumentation Diagram No. F082198.

3.0 HAZARDOUS WASTE CHARACTERISTICS

Several hazardous wastes are transferred to the T-F-9 Tank. These include:

- Spent methanol waste (TCEQ No. 0001203H);
- Spent isopropanol (IPA) waste (TCEQ No. 0013203H);
- Amine mix waste (TCEQ No. 0123207H); and
- Morpholine bottoms (MB) lights waste (TCEQ No. 0165203H).

All wastes that are stored in the T-F-9 Tank are completely compatible and miscible. The collective contents of the T-F-9 Tank carry the following waste numbers:

- D001 for ignitability because its flashpoint is less than 140 degrees Fahrenheit (°F);
- D002 for corrosivity because the pH occasionally has been measured slightly above 12.5;
- D018 for toxicity due to the presence of benzene above the threshold of 0.5 parts per million by weight (ppmw);
- F003 because methanol is defined as a spent non-halogenated solvent; and
- U154 because the waste mixture contains off-specification commercial chemical products that contain methanol.

Additional discussion of the waste stream characteristics is provided in Section IV of the Part B Permit Application.

4.0 SECONDARY CONTAINMENT

This section provides a description of the secondary containment system for the T-F-9 Tank to demonstrate compliance with 40 CFR § 264.193.

Tank T-F-9 is situated within a concrete diked area constructed of steel reinforced concrete. The tank foundation within the diked area consists of an 18-inch thick concrete slab, with top and bottom mats of reinforcing steel. The base of the diked area is sloped to a sump and swap box. The interior surface of the secondary containment area is coated with an epoxy grout coating to resist migration of liquid or solid waste into the concrete should a release occur. The secondary containment area is maintained free of cracks or gaps.

The estimated volume of the diked area is 37,400 gallons, which is sufficient to contain one hundred percent of the effective working tank volume and the precipitation of a 25-year, 24-hour storm event. A diagram of the secondary containment area and secondary containment volume calculations are included in Attachment A.

Some of the ancillary equipment, including transfer piping and associated valves, flanges, *etc*., that are located outside of the T-F-9 diked area is not provided with secondary containment. Because this ancillary equipment is inspected on a daily basis to detect evidence of corrosion and/or the presence of leaks or spills, pursuant to 40 CFR § 264.193(f), secondary containment for this ancillary equipment is not required.

5.0 ADDITIONAL REQUIREMENTS FOR HANDLING IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES

The T-F-9 Tank manages ignitable and reactive wastes. This section describes how Huntsman achieves compliance with the requirements of 40 CFR §§ 264.198 and 264.199.

The T-F-9 Tank is located over 500 feet from the closest property line, which is well beyond the minimum distance required by *National Fire Protection Standards (NFPA) Flammable and Combustible Liquids Code*.

The liquid wastes are managed in the tank as flammable liquids. All sources of ignition are excluded when activities that could release flammable vapors are undertaken. Smoking is not permitted within the Conroe Plant except in designated areas. ''No Smoking" signs are posted at all entries to the facility.

6.0 AIR EMISSIONS CONTROLS

The air emission standards for tanks provided in 40 CFR Part 264 Subpart CC are applicable to the T-F-9 Tank. The T-F-9 Tank has a design capacity of 113.56 cubic meters. The hazardous waste mixture stored in the tank has a maximum organic vapor pressure of 130 kilopascals (kPa). Therefore, Tank Level 2 controls are required for the T-F-9 Tank.

The T-F-9 Tank has a fixed-roof and is vented through a closed-vent system directly to an emission control device in accordance with 40 CFR § 264.1084(g). The control device is a packed bed scrubber. Vapors from the tank flow up through the packing with a continuous down flow of water. Testing has demonstrated that this control device reduces the total organic content of the inlet vapor stream vented to the device by at least 95 percent by weight. Inspections and maintenance are conducted in accordance with Subpart CC provisions to ensure that this control device operates as designed. The specific inspections for the tank are listed in Table III.D in Section III of the Part B Permit Application.

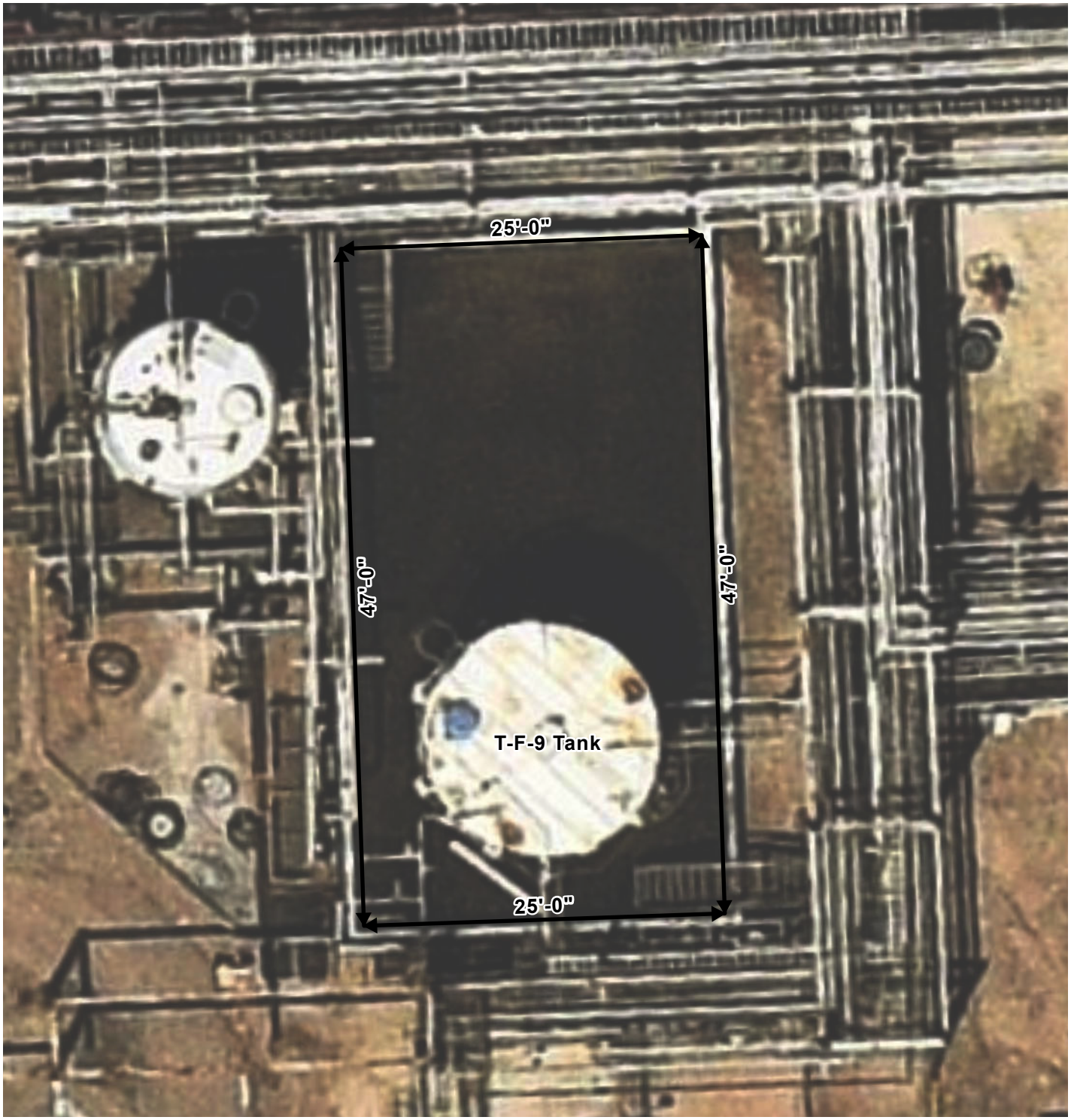
7.0 TANK ASSESSMENT AND INSPECTIONS

A written assessment of the structural integrity and suitability of the T-F-9 tank was prepared and certified by a qualified Professional Engineer, as required under 40 CFR §§ 264.191. The assessment is provided in Section XIII of the of the Part B Permit Application (Confidential Information).

Periodic internal and external inspections are performed for the tank. The most recent inspection reports are provided in Section XIII of the of the Part B Permit Application (Confidential Information).

Attachment A:

SECONDARY CONTAINMENT FIGURE AND CALCULATIONS



Legend

Tank Dike Interior Boundary Dimensions

Note:
1. The average height of the containment walls is 4'3".

N

0 5 10 FEET

1" = 10 FEET
1:120

Coterie ENVIRONMENTAL

HUNTSMAN PETROCHEMICAL CORP
CONROE, TEXAS

ATTACHMENT A
T-F-9 SECONDARY CONTAINMENT

DRAWN BY:	L WILSON
APPROVED BY:	H MCHALE
PROJECT NO:	081-24-01
FILE NO.	Secondary Containment
DATE:	SEPTEMBER 2025

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Secondary Containment Calculations

Tank capacity at shutoff design	=	27,514	gallons
(19'6" maximum level fill shutoff design)			
Containment volume required:			
100% of the maximum tank capacity	=	27,514	gallons
Precipitation from a 25-year, 24-hour rainfall event	=	12.1	inches
(collected in containment area)	=	1,185	cubic feet
	=	8,863	gallons
Total required volume	**=**	**36,377**	**gallons**
Secondary containment dimensions:			
Length	=	47	feet
Width	=	25	feet
Height	=	4.25	feet
Volume	=	4,994	cubic feet
Volume	=	37,356	gallons
Volume occupied by tank legs, pedestals, and baseplates:			
Number of leg pedestals	=	8	
Width	=	1	feet
Length	=	1	feet
Height	=	0.5	feet
Volume	=	4.0	cubic feet
Volume	=	29.9	gallons
Number of leg baseplates	=	8	
Width	=	1	feet
Length	=	1	feet
Height	=	0.05208333	feet
Volume	=	0.4	cubic feet
Volume	=	3.1	gallons
Number of legs	=	8	
Cross-sectional area	=	0.04	feet
Height	=	3.20	feet
Volume	=	1.1	cubic feet
Volume	=	8.0	gallons
Total displacement	=	41.0	gallons
Effective containment volume	**=**	**37,315**	**gallons**
Volume remaining after rain and spill	**=**	✔ **938**	**gallons**

Revised: January 2026

Appendix V.H:
INCINERATORS
(TABLE V.H.1 AND R-F-70 INCINERATOR ENGINEERING REPORT)

Table V.H.1. - Incinerators

Permit Unit No. *	Incinerators	N.O.R No.	Waste Nos. [1]	Waste Physical Form (Pumpable or Non-Pumpable)	Reactive, Incompatible, or F020, F021, F022, F023, F026, or F027 Waste	Unit Status
3	R-F-70 Incinerator	023	1, 2, 3, 4, 5, 6, 7, 8, 9	Liquid, pumpable	Not applicable	Active

[1] From the first column of Table IV.B.

* If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

HUNTSMAN

Enriching lives through innovation

HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

ENGINEERING REPORT: R-F-70 INCINERATOR

DECEMBER 2025

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1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

40 CFR § 270.19 requires that Huntsman submit information about the R-F-70 Incinerator with this permit application to demonstrate compliance with the standards contained in 40 CFR §§ 264.340 through 351. However, pursuant to 40 CFR §§ 264.340(b) and 270.62, all waste analysis, performance standards, operating requirements, monitoring requirements, and inspection requirements do not apply to the R-F-70 Incinerator once Huntsman demonstrates compliance with the HWC NESHAP and submits the Notification of Compliance. Huntsman originally completed this process in 2004. The Texas Commission on Environmental Quality (TCEQ) issued the most recent Finding of Compliance for the incinerator on June 18, 2021. Accordingly, most of the information specified by 40 CFR § 270.19 is no longer applicable. Details related to operation and design of the incinerator and associated equipment are now addressed under the Clean Air Act's HWC NESHAP.

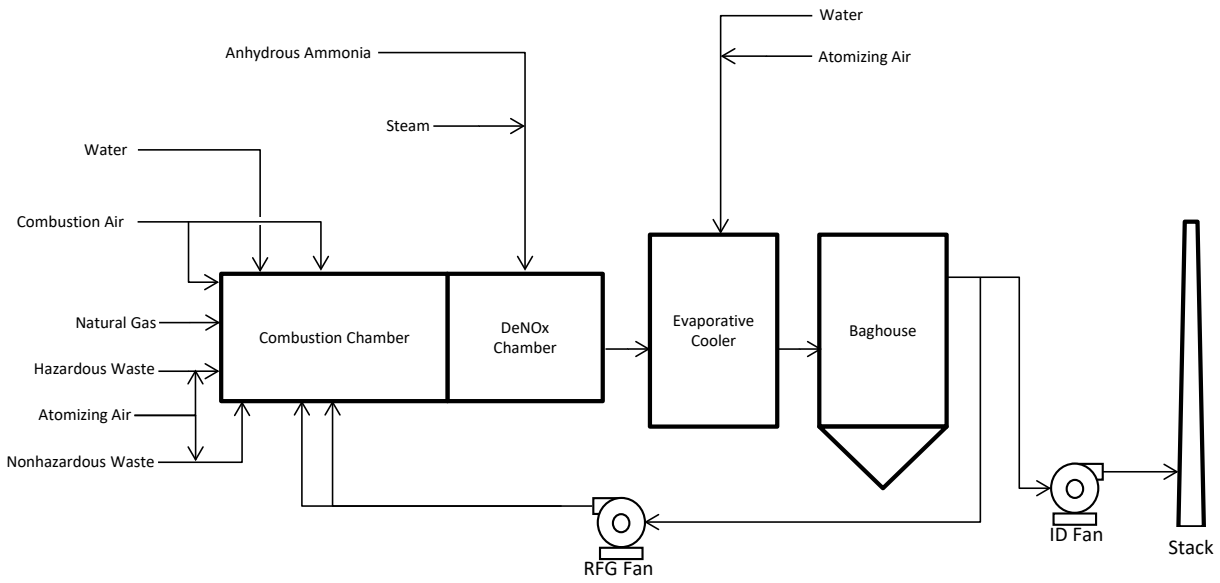
The remaining sections of this report provide the following information:

- Section 2.0 describes the incinerator equipment;
- Section 3.0 discusses the continuous monitoring systems (CMS);
- Section 4.0 discusses the Part B Section V application tables;
- Section 5.0 discusses special waste considerations; and
- Section 6.0 addresses startup, shutdown, and malfunction requirements.

2.0 EQUIPMENT DESCRIPTION

The R-F-70 Incinerator is a two-stage horizontal liquid injection incinerator manufactured by Von Roll Inc. It was installed at the Conroe Plant in 2003 through 2004. The unit has a maximum design capacity of 38.9 million British thermal units per hour (MMBtu/hr). The incinerator was designed for the treatment of wastes in a staged combustion process to limit nitrogen oxide (NO_x) emissions. The combustion chamber is followed by a selective non-catalytic reduction (SNCR) chamber, an evaporative cooler, a fabric filter baghouse, an induced draft (ID) fan, and an exhaust stack. Figure 1 provides a schematic diagram of the incineration system.

FIGURE 1
R-F-70 INCINERATOR PROCESS SCHEMATIC



2.1 COMBUSTION CHAMBER

The combustion chamber is a horizontal, cylindrical, self-supporting unit designed for forced draft operation. It is designed with two zones, a reducing zone and an oxidizing zone, to completely burn the organics present in the wastes while minimizing the formation of NO_x. The two-zone combustion chamber is approximately 24 feet in length with an inside diameter of approximately 10.5 feet. The chamber is constructed of carbon steel lined with refractory.

Liquid wastes and natural gas are fed to the reducing zone of the combustor through one tri-fuel burner mounted on the front wall. The wastes and natural gas are burned with less than the stoichiometric requirement of oxygen. High temperature and the less than stoichiometric conditions cause the organic

compounds to dissociate, producing free nitrogen. The competition for the limited oxygen available between the free nitrogen and the combustibles keeps the nitrogen from being oxidized to form NO_x.

The oxidizing zone of the combustor begins approximately 12 feet from the front wall. The oxidizing zone is designed to introduce and distribute air through six nozzles that penetrate through the horizontal wall of the chamber. The nozzles are designed to inject air directly into the flue gas stream with sufficiently high momentum to enhance mixing of the oxygen with any remaining organic vapors. The oxidizing zone is designed to complete the combustion of all organics under excess oxygen conditions. Recirculated flue gas and cooling water are fed to the oxidizing zone to modulate flue gas temperature.

2.2 Combustion Air Fan

One combustion air fan provides air to the reducing zone and the oxidizing zone of the combustion chamber.

2.3 Selective Non-Catalytic Reduction Chamber

The SNCR chamber is designed to reduce NO_x emissions using ammonia injection. The ammonia reacts with NO_x to form nitrogen and water vapor. Ammonia vapor is injected into the turbulent transition zone in which flue gas flow changes from horizontal flow in the combustor to vertical flow in the SNCR chamber. The ammonia flow rate is controlled in response to changes in the stack gas NO_x concentration.

2.4 Evaporative Cooler

Flue gas flows from the SNCR chamber to the evaporative cooler. Air-atomized water is introduced through the quench spray nozzles to cool the flue gas to approximately 400 degrees Fahrenheit (°F).

2.5 Baghouse

Flue gas flows from the evaporative cooler into the fabric filter baghouse. The baghouse is comprised of three identical modules. Each module contains 144 fabric-type filter bags. The system is designed to allow even gas flow and particle distribution to all modules. The system is sized with one spare module to facilitate continuous operation of the incineration system with one module offline for cleaning and/or maintenance. Compressed air cleaning is used to periodically remove the filter cake that forms on the bags.

2.6 Induced Draft Fan

The ID fan is located downstream of the baghouse. The ID fan is the prime mover and provides the necessary vacuum to overcome the pressure drop through the entire incineration system. It has a design capacity of 34,000 cubic feet per minute.

2.7 EXHAUST STACK

The stack is approximately 125 feet high and has an internal diameter of 3.5 feet. The stack is equipped with sampling ports to facilitate stack gas sampling.

2.8 SECONDARY CONTAINMENT

Secondary containment is provided for specific equipment areas within inside battery limits for the incinerator. The secondary containment area consists of a concrete paved and curbed area, a drainage trench, and a dedicated, underground process sewer. All liquid within the containment area will collect into a swap-box design that allows uncontaminated liquid to be routed (underground) to the plant water/air treatment system. Contaminated liquid is isolated and routed to a concrete sump and transferred via a sump pump to the plant wastewater tank.

3.0 CONTINUOUS MONITORING SYSTEMS

The R-F-70 Incinerator is equipped with CMS, including continuous process monitoring systems (CPMS) and continuous emissions monitoring systems (CEMS). These CMS enable Huntsman to maintain safe operation of the incinerator in compliance with the HWC NESHAP operating parameter limits (OPLs).

The data measured by the CMS is recorded in the facility operating records. System operations are monitored with process controllers, which then transmit the process conditions to the distributed control system (DCS).

3.1 CONTINUOUS PROCESS MONITORING SYSTEMS

Various CPMS are required for the incinerator to document compliance with the applicable HWC NESHAP OPLs. Table 2 presents a summary of the CPMS for the R-F-70 Incinerator.

TABLE 1
CONTINUOUS PROCESS MONITORING SYSTEMS

TAG NO.	MEASURED PARAMETER	INSTRUMENT DESCRIPTION
TT-F212A/B	Combustion chamber temperature	Thermocouples and transmitters
FT-F336	Stack gas flow rate	Mass flow meter and transmitter
FT-F350	Total hazardous waste feed rate	Coriolis flow meter and transmitter
PTF-577	Atomizing fluid pressure	Pressure transmitter
PT-F527	Combustion chamber pressure	Pressure transmitter
TT-214A/B/C	Baghouse inlet temperature	Thermocouples and transmitters

3.2 BAGHOUSE LEAK DETECTION SYSTEM

Huntsman operates a leak detection system for the baghouse. The leak detection system continuously detects and records particulate matter (PM) emissions at concentrations of 1.0 milligram per actual cubic meter (mg/acm) or greater. Installation and operation of the system is performed in accordance with manufacturer's recommendations and United States Environmental Protection Agency (USEPA) guidance on leak detection systems, *Fabric Filter Bag Leak Detection Guidance* (USEPA, 1997).

3.3 CONTINUOUS EMISSIONS MONITORING SYSTEMS

Huntsman monitors the concentrations of carbon monoxide (CO) and oxygen in the stack gas of the incinerator to comply with the HWC NESHAP. Huntsman utilizes a non-dispersive infrared (NDIR) analyzer to continuously monitor CO concentration in the stack gas. The analyzer is a dual range design with a span of zero to 200 parts per million by volume on a dry basis (ppmv dry) for the low range and a

span of zero to 3,000 ppmv dry for the high range. The oxygen analyzer that is used to correct CO emission concentrations to seven percent oxygen is a paramagnetic oxygen analyzer. The analyzer has a span of zero to 25 percent oxygen by volume on a dry basis

3.4 AUTOMATIC WASTE FEED CUTOFF SYSTEMS

Huntsman operates the incinerator with an automatic waste feed cutoff (AWFCO) system that immediately and automatically cut off the hazardous waste feed to the incinerator when operating conditions deviate from those established in the HWC NESHAP.

3.5 EMERGENCY SHUTDOWN SYSTEMS

Emergency shutdown features are included to protect the equipment in the event of a malfunction. During an emergency shutdown, all waste feeds and fuel feeds are stopped. The trigger points for an emergency shutdown have been set independent of regulatory test conditions. These limits are based on equipment design and operating specifications and are considered good operating practices. The following conditions trigger an emergency shutdown of the incinerator:

- Loss of power;
- Loss of DCS;
- Loss of burner flame;
- Low natural gas pressure;
- Combustion air fan failure;
- Recycle flue gas fan failure;
- ID fan failure; and
- Low evaporative cooler water supply pressure.

4.0 APPLICATION TABLES

Section V of the Part B application includes several tables intended to define the operating conditions of the incinerator. The following tables are included in Section V for the R-F-70 Incinerator:

- Table V.H.1., *Incinerators* – This table lists the incinerators included in the permit. This table is applicable to the Conroe Plant and has been included in the permit application.
- Table V.H.2., *Incinerator Permit Conditions, Monitoring and Automatic Waste Feed Cutoff Systems* – This table establishes operating conditions for an incinerator. This table is not applicable to the R F-70 Incinerator and is therefore not included in the permit application. These permit conditions are no longer applicable to the incinerator because the HWC NESHAP Finding of Compliance has been issued.
- Table V.H.3., *Maximum Constituent Feed Rates* – This table establishes constituent feed rate limits for an incinerator. This table is not applicable to the R F-70 Incinerator and is therefore not included in the permit application. Constituent feed rate limits are no longer applicable to the incinerator because the HWC NESHAP Finding of Compliance has been issued.
- Table V.H.4., *Maximum Allowable Emission Rates* - This table establishes emission rate limits for an incinerator. This table is not applicable to the R F-70 Incinerator and is therefore not included in the permit application. Emission rate limits are no longer applicable to the incinerator because the HWC NESHAP Finding of Compliance has been issued.
- Table V.H.5., *Incinerator Permit Conditions, Monitoring and Automatic Feed Cutoff Systems – Short-Term Operation* - This table establishes operating limits for shakedown and trial burn periods for a new incinerator. The R F-70 Incinerator is an existing incinerator. This table is not applicable and is therefore not included in the permit application.
- Table V.H.8., *Principal Organic Hazardous Constituents* – This table establishes the principal organic hazardous constituent (POHCs) to be used for the destruction and removal efficiency (DRE) demonstration during a trial burn. This table is not applicable to the R F-70 Incinerator and is therefore not included in the permit application. Trial burns are no longer applicable to the incinerator because HCW NESHAP comprehensive performance tests (CPTs) are performed and the HWC NESHAP Finding of Compliance has been issued.

5.0 SPECIAL WASTE CONSIDERATIONS

This section addresses special considerations for wastes managed in the incinerator.

5.1 REACTIVE OR INCOMPATIBLE WASTE

The R-F-70 Incinerator does not manage reactive or incompatible wastes.

5.2 DIOXIN WASTES

The R-F-70 Incinerator does not manage F020, F021, F022, F023, F026, and F027 wastes.

5.3 PRECAUTIONS FOR IGNITION OR REACTION

Precautions to prevent the ignition or reaction of wastes are based on normal plant safety protocol and specific hazardous waste area operations. The liquid waste is pumped from the T-F-9 Tank to the R-F-70 Incinerator through dedicated lines. There is no exposure to the atmosphere and therefore no potential for ignition or reaction.

6.0 STARTUP, SHUTDOWN, AND MALFUNCTION

Huntsman maintains and operates in accordance with an HWC NESHAP startup, shutdown, and malfunction plan for the R-F-70 Incinerator. The plan states that Huntsman intends to utilize the Clean Air Act (CAA) option to address control of emissions during startup, shutdown, and malfunction events. Under 40 CFR § 270.235(a)(1)(iii), Huntsman is required to submit the startup, shutdown, and malfunction plan to the Administrator for review and approval. At that point, RCRA permit conditions to address startup, shutdown, and malfunction events are no longer required.

Huntsman submitted the startup, shutdown, and malfunction plan to the Administrator in 2003. Therefore, requirements for startup, shutdown, and malfunction events need not be addressed in the RCRA permit.

VI. GEOLOGY REPORT

VI. Geology Report

Provide all Part B responsive information in Appendix VI. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

This portion of the application applies to owners or operators of new hazardous waste management facilities; areal and/or capacity expansions of existing hazardous waste management facilities; and existing industrial solid waste facilities that store, process or dispose of hazardous waste in surface impoundments, landfills, land treatment units, waste piles (except those waste piles that meet the requirements of Section V.E.10.b. of this application), and tanks or drip pads which require a contingent post-closure plan.

For a new Compliance Plan or modification/amendment to an existing Compliance Plan of Section XI of this application, submit a Geology Report which contains updated site geologic information derived from on-going investigations since submittal of the last Permit modification/amendment application.

Submit a Geology Report which includes at a minimum the following information. This report and all specifications, details, calculations/estimates and each original sheet of plans, drawings, maps, cross-sections, other graphics, such as limits of contamination maps, etc. or any other geoscientific work must be signed and sealed by a Professional Geoscientist licensed in the State of Texas under the Professional Geoscientists Practice Act.

A. Geology and Topography

1. Active Geologic Processes

Provide a description and interpretation of the active geologic processes in the vicinity of the facility. This description should include:

a. An identification of any faults (active or otherwise) in the area of the facility. The preparer should determine which Holocene sediments or man-made structures have been displaced. The report should contain a description of the investigation techniques used to identify faults and should assess the degree, if any, to which a particular fault increases the long-term potential for waste migration. The clearance required from active faults to ensure that liner systems will not be disrupted will be based upon site specific factors such as the zone of significant surface deformation, uncertainty in locating the fault, activity of the fault, and a distance to provide a reasonable margin of safety. These issues should be addressed when discussing the offset of an industrial solid waste facility unit from an active fault.

To satisfy the requirements of 30 TAC 305.50(a)(4)(D) and 305.50(a)(10)(E), for a proposed hazardous waste management facility or a modification or amendment of a permit which includes a capacity expansion of an existing hazardous waste management facility, submit the following.

(1) A geologic literature review should be conducted, from which useful information on the possibility of faulting at a given site may be revealed. This includes, but is not limited to, maps of surface faults, subsurface structure, and field investigations by the author(s).

(2) Descriptions and maps of faulting, fracturing, and lineations in the area are necessary. An aerial photo with lineation interpretations is suggested.

(3) The maps and cross-sections are to be constructed using an amount of data necessary to adequately describe the geology of the area. Surface data, including data regarding known surface expressions, such as surface faults, gas seeps, lineations, etc., should be accounted for in the subsurface interpretations. A surface structure map should be prepared, incorporating all of the subsurface data as well as known surface features.

(4) A minimum of two structural cross-sections, utilizing available oil field and/or water well electric log data, shall be made perpendicular to each other, crossing at the proposed surface unit location. These cross-sections should define geologic units, indicating especially Holocene sediments and Underground Sources of Drinking Water (USDWs), as well as lithology. The cross-sections should be constructed from the surface, down through the shallowest major structure or the base of the Holocene, whichever is deeper. These cross-sections need to be on a scale necessary to depict the local geology (3000' radius from the site location minimum). If needed to adequately describe the local geology, then a larger radius or deeper area of review may be necessary.

(5) A minimum of two structural subsurface maps need to be prepared. One map should be made on the shallowest mappable subsurface marker, the other on a deeper horizon that shows the underlying major structure. Additional maps may be necessary.

(6) Field surveillance will be necessary to check the area of the facility for surface features, such as lineations, and to investigate potential surface faults as indicated by, but not limited to, aerial photos, topographic maps, and seismic and subsurface structural maps.

(7) The above requirements do not limit the use of any additional information, such as seismic data, isopach maps, or potentiometric maps, that may help in defining the geology of the area of review.

(8) If faulting exists within 3000 feet of the surface unit, it must be demonstrated that the fault has not had displacement within Holocene time. If such a fault does exist, it cannot pass within 200 feet of the surface unit.

(9) If a fault that has been active within the Holocene is located within 3000 feet of the surface unit, it must be demonstrated that, a.) the fault is not transmissive, i.e., it will not provide for groundwater movement that would result in endangerment to human health or the environment, and b.) there is no actual and/or potential problem of subsidence, which could endanger the stability of the surface unit.

b. A discussion of the extent of land surface subsidence in the vicinity of the facility including total recorded subsidence and past and projected rates of subsidence. For facilities located at low elevations along the coast which have experienced appreciable rates of subsidence, the potential for future submergence beneath Gulf water should be addressed.

c. A discussion of the degree to which the facility is subject to erosion. The potential for erosion due to surface water processes such as overland flow, channeling, gullying, and fluvial processes such as meandering streams and undercut banks should be evaluated. If the facility is located in a low-lying coastal area, historical rates of shoreline erosion should also be provided.

d. Complete Table VI.A.1. - Major Geologic Formations

2. **Applicable to Land Based Units Only.** Regional Physiography and Topography (applicable only to owners or operators of facilities that store, process, or dispose of hazardous waste in surface impoundments, landfills, land treatment units, waste piles, except waste piles exempt from groundwater monitoring requirements, and tanks which require a contingent post-closure plan)

    a. Distance and direction to nearest surface water body
    b. Slope of land surface
    c. Direction of slope
    d. Maximum elevation of facility
    e. Minimum elevation of facility

3. **Applicable to Land Based Units Only.** Regional Geology (applicable only to owners or operators of facilities that store, process, or dispose of hazardous waste in surface impoundments, landfills, land treatment units, waste piles, except waste piles exempt from groundwater monitoring requirements, and tanks which require a contingent post-closure plan)

    Provide a description of the regional geology of the area. This section should include:

    a. A geologic map of the region with text describing the stratigraphic and lithologic properties of the map units. An appropriate section of a published map series such as the Geologic Atlas of Texas prepared by the Bureau of Economic Geology is acceptable.

    b. A description of the generalized stratigraphic column in the facility area from the base of the lowermost aquifer capable of providing usable groundwater to the land surface. At least the uppermost 1,000 feet of section below the facility should be described. The geologic age, lithology, variation in lithology, thickness, depth, geometry, hydraulic conductivity, and depositional history of each geologic unit should be described based upon available geologic information. Regional stratigraphic cross sections should be provided, where available.

4. Subsurface Soils Investigation Report **(Applicable to land based units or units requiring contingent closure and post-closure).**

This section should contain the results of an investigation of subsurface conditions for each land based unit and/or unit which requires contingent closure and post-closure care. If several units are in close proximity, a single investigation for the area will suffice. This report should include:

a. The logs of borings performed at the waste management area. All borings must be conducted in accordance with established field exploration methods. Investigation procedures should be discussed in the report. A sufficient number of borings should be performed to establish subsurface stratigraphy and to identify and allow assessment of potential pathways for pollution migration. Borings must be sufficiently deep to allow identification of the uppermost aquifer and underlying hydraulically interconnected aquifers. Borings should penetrate through the uppermost aquifer and all deeper hydraulically interconnected aquifers, deep enough to identify the aquiclude at the lower boundary. Borings should be completed to a depth at least 30 feet below the deepest excavation planned at the waste management area.

b. A text which describes the investigator's interpretations of the subsurface stratigraphy based upon the field investigation. If appropriate, soils may be assigned to generalized strata to aid in the discussion.

c. A text which describes the investigator's interpretations of the subsurface stratigraphy based upon the field investigation. If appropriate, soils may be assigned to generalized strata to aid in the discussion.

d. Complete Table VI.A.4. - Waste Management Area Subsurface Conditions and provide in the report data which describes the geotechnical properties of the subsurface soil materials. All laboratory and field tests must be performed in accordance with recognized procedures. A brief discussion of test procedures should be included. All major strata encountered during the field investigation phase should be characterized with regard to: Unified Soil Classification, moisture content, percent less than number 200 sieve, Atterberg limits (liquid limit, plastic limit, and plasticity index), and coefficient of permeability. Field permeability tests should be used to determine the coefficient of permeability of sand or silt units and should also be used to supplement laboratory tests for more clay-rich soils. In addition, particle size distribution and relative density based upon penetration resistance should be determined for coarse-grained soils. For fine-grained soils the following parameters should also be determined: cohesive shear strength based upon either penetrometer or unconfined compression tests, dry unit weight, and degree of saturation(s). For the major soil strata encountered, the maximum, minimum, and average for each of these variables should be compiled.

e. For land treatment units, provide a description of the surficial soils at the site which includes:

(1) The name and description of the soil series at the site;
(2) Important physical properties of the series such as depth, permeability, available water capacity, soil pH, and erosion factors;
(3) Engineering properties and classifications such as USDA texture, Unified Soil Classification, size gradation, and Atterberg limits (liquid limit, plastic limit, and plasticity index); and
(4) The cation exchange capacity (CEC) of the soil(s) expressed in units of meq/100g.

Much of this information may be obtained by consulting the county soil survey published by the United States Department of Agriculture, Soil Conservation Service. If available, a copy of an aerial photograph showing soil series units on the land treatment area should be provided.

If an aerial photograph is not available, include a soil series map as an attachment to this subsurface soils investigation report.

B. Facility Groundwater

If past monitoring has shown the presence of hazardous constituents in the groundwater, the owner or operator must submit a Compliance Plan Application with this application. The Compliance Plan Application and instructions can be found in Section XI of this application form.

1. Regional Aquifers

Provide a description of the regional aquifers in the vicinity of the facility based upon available geologic references. The section should provide:

a. Aquifer names and their association with geologic units described in Section VI.A.3.b.;

b. A description of the constituent materials of the aquifer(s);

c. A description of the water-bearing and transmitting properties of the aquifer(s);

d. Whether the aquifers are under water table or artesian conditions;

e. Whether the aquifers are hydraulically connected;

f. A regional water table contour map or potentiometric surface map for each aquifer, if available, from published references;

g. An estimate of the rate of groundwater flow in units of ft/yr;

h. Values for total dissolved solids content of groundwater from the aquifers;

i. Identification of areas of recharge to the aquifers; and

Note: An application for a new hazardous waste surface impoundment, waste pile, land treatment unit, or landfill, which is to be located in the apparent recharge zone of a major or minor aquifer, as designated by the Texas Water Development Board, must include a hydrogeologic report documenting the potential effects, if any, on the regional aquifer in the event of a release from the waste containment system. See the publication entitled Water for Texas, Today and Tomorrow (1990) or subsequent revision (Available at http://www.twdb.texas.gov/waterplanning/swp/1990/indcx.asp) for more information [30 TAC 305.50(6)]

j. The present use of groundwater withdrawn from aquifers in the vicinity of the facility.

The preparer should update Section III.C.1.e. of the Part A permit application to ensure that all water wells within 1 mile of the property boundaries of the facility have been located. The aquifer(s) yielding water should be identified for each well.

2. Provide groundwater conditions for each land based unit or unit which requires post closure care which includes all the information specified in 30 TAC 335.156-335.167. This discussion should also include:

   a. Records of water level measurements in borings. The boring logs prepared in response to Section VI.A.4.a. should be annotated to note the level at which groundwater is first encountered and the level of groundwater after equilibration. Normally a 24-hour period is adequate for equilibration of groundwater but an extended period may be required for saturated clay deposits. This information should also be presented on the cross sections required in Section VI.A.4.b. and recorded and retained in the facility groundwater monitoring record.

   b. Records of historical maximum and minimum static water level measurements in monitor wells. Historic water level measurements made during any previous groundwater monitoring should be presented in a table for each well.

   c. Upper and lower limits of the uppermost aquifer and deeper aquifers which are hydraulically interconnected to it beneath the facility boundary. In most cases this identification would include surface contour maps of the top and bottom surfaces. Indicate the typical depth at which groundwater is first encountered.

   d. A site specific water table contour map or potentiometric surface map for the uppermost aquifer, and the basis for such identification (the information obtained from hydrogeologic investigations of the facility area). The predicted groundwater flow direction and rate should be indicated.

   e. A discussion of the variation of hydraulic gradient across the site, including vertical gradient. Calculations for the maximum, minimum, and average groundwater flow velocities for each aquifer identified should also be provided, including pump test data where appropriate.

   f. An analysis of the most likely pathway(s) for pollutant migration in the event that the primary barrier liner system is penetrated.

3. Description of the Detection Monitoring Program

It is important to note that even if the proposed program may use the same well system as the present program, the sampling parameters may be different.

a. Include in the design report a description of the proposed detection monitoring program. This description should contain all requirements of 30 TAC 335.163-335.164.

b. Provide a justification for the selected suite of waste specific parameters specified in Table VI.B.3.c. - Groundwater Sample Analysis based on toxicity, mobility, persistence, and concentrations in light and dense non-aqueous phase components of the waste.

c. (Sampling and Analysis Plan) Describe the proposed sampling and analysis methods, as well as statistical comparison procedures to be utilized in evaluating groundwater monitoring data. Note: Methods listed for use in groundwater programs may provide flexibility allowing for updates of the base method. For methods other than the standard acceptable methods, applicant must provide a demonstration that the proposed methods are appropriate for groundwater analysis per 30 TAC 335.163(5).

d. Specify the statistical method and process for determining whether constituent concentrations in groundwater are above background, in accordance with 30 TAC 335.163. Refer to the EPA guidance document entitled Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities - Unified Guidance (March 2009) (document # EPA 530-F-09-020) for recommended methods.

All data submitted to the TCEQ shall be in a manner consistent with the latest version of the "*Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation Recovery Act and Underground Injection Control*" (TCEQ QAPP) which a can be found on the agency's website.

Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity. The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from ***Ground Water, Volume II: Methodology***, (document # EPA/625/6-90/016b) or an equivalent method approved by the Executive Director of the TCEQ. Laboratory methods shall be those specified in ***Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846***, 1987, as revised; ***Standard Methods for the Examination of Water and Wastewater, Fifteenth Edition***, 1980, and 1981 supplement, or current adopted edition; ***RCRA Ground-Water Monitoring: Draft Technical Guidance***, 1992, ***OSWER Directive 9950.1***, or an equivalent method approved in writing prior to use by the Executive Director. [30 TAC Section 305.125(11)(A)]

e. For inclusion into a permit, complete Table VI.B.3.b. - Unit Groundwater Detection Monitoring System to specify the proposed well system for each unit or waste management area which requires groundwater monitoring.

f. For inclusion into a permit, complete Table VI.B.3.c to specify:

(1) the suite of waste specific parameters (indicator parameters, waste constituents, or reaction products) which will be analyzed at each sampling event for each well or group of wells. These parameters must provide a reliable indication of the presence of hazardous constituents in the groundwater;

(2) the sampling frequencies and calendar intervals (e.g., monthly; quarterly within the second 30 days of each quarter; semiannually within the first 30 days of the 2nd and 4th quarters, etc.);

(3) the analytical method and the laboratory predicted detection limit and predicted Practical Quantification Limit (PQL) of the sample preparation and analysis methods for the selected parameters. This detection limit will represent the capability of the sampling and analysis to reliably and accurately determine the presence of the selected parameters in the sample; and

(4) the concentration limit which will be the basis for determining whether a release has occurred from the waste management unit/ area. Concentration limits shall be based on background values for the waste management unit/area, or PQL values developed through laboratory data obtained using practices consistent with the latest version of the TCEQ QAPP. If background values are lower than PQLs, the applicant may choose respective PQLs as concentration limits for hazardous constituents.

g. Submit drawings depicting the monitoring well design, current and proposed.

h. Submit at least one map of the entire facility and additional maps or drawings if necessary on one or more 8.5" x 11" sheets of sufficient scale to show the following in adequate detail:
   (1) Monitoring well locations, current and proposed;
   (2) Soil-pore liquid and core sampling points, current and proposed;
   (3) Waste management unit(s)/area;
   (4) Property boundary;
   (5) Point of compliance;
   (6) Direction of groundwater flow; and
   (7) Extent of any known plume of contamination

i. For the description of site-specific groundwater for inclusion in permit summary documents, please complete the following:

Table VI.A.2. Description of Uppermost Aquifer

C. Exemption from Groundwater Monitoring for an Entire Facility

In accordance with 30 TAC 335.156(b)(4), a waste management facility may be exempt from groundwater monitoring if the owner or operator can demonstrate that there is no potential for migration of liquid from any regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and post-closure care period. This demonstration must be submitted with the permit application, and must be certified by a qualified geologist or geotechnical engineer.

This exemption does not apply to Unsaturated Zone Monitoring. Owners and operators of Land Treatment Units must monitor the unsaturated zone under all circumstances.

The following areas should be addressed in the demonstration, and any predictions must be made on assumptions that maximize the rate of liquid migration:

1. Thickness of soil between the base of the unit and saturated zone;
2. Thickness of saturated zone;
3. Head pressure of the fluids;
4. Properties of the saturated and unsaturated zone (including permeability, effective porosity, and homogeneity), and
5. Total life of facility

The criteria used for the evaluation of this demonstration are more stringent than those used for evaluations of demonstrations submitted prior to permitting. Thus it is necessary for an owner or operator to submit another demonstration even if one was submitted and approved previously.

This type of exemption differs from the exemptions described in Sections V.D. (Surface Impoundments), V.E. (Waste Piles), and V.G. (Landfills). An owner or operator may pursue a facility-wide exemption as well as an exemption for a particular unit, if the owner or operator wishes.

D. Unsaturated Zone Monitoring

1. List all hazardous constituents that have been or will be monitored.
   a. Current parameters.
   b. Proposed parameters.
2. Number of soil-pore liquid sampling points.
   a. Depth of sampling points.
   b. Equipment used for soil pore liquid monitoring.
3. Number of soil core sampling points.
   a. Depth of soil core sampling points.
   b. Indicate on a facility map locations of all sampling points.

TABLE OF APPENDICES

APPENDIX	TITLE
VI.A	Geology and Topography (Geology Report)
VI.B	Facility Groundwater (Not Applicable)
VI.C	Exemption from Groundwater Monitoring for an Entire Facility (Not Applicable)
VI.D	Unsaturated Zone Monitoring (Not Applicable)

Appendix VI.A:
GEOLOGY AND TOPOGRAPHY (GEOLOGY REPORT)

HUNTSMAN

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HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

GEOLOGY REPORT

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This document presents the geology report.

2.0 APPLICABILITY

Section VI is not applicable to this renewal application. The facility is not a new hazardous waste management facility and is not undergoing an areal expansion. There are no land based units and no post-closure tanks or drip pads included in this application.

VII. CLOSURE AND POST-CLOSURE PLANS

VII. Closure and Post-Closure Plans

Provide all Part B responsive information in Appendix VII. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

For multiple units provide an include all Part B responsive information in a separate Appendix for each unit.

Submit a full closure plan and post-closure plan, if applicable, which contains all the information required by 30 TAC 335.8, 335.169, 335.172, 335.174, 335.177, 335.178, 335.551-335.569, 30 TAC Chapter 350, 40 CFR 264.112, 264.118, 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.575, 264.601, 264.603, 264.1102, 270.14(b)(13), 270.17(f), 270.18(h), 270.20(f), 270.21(e), 270.23(a)(2) & (3), and 270.26(c)(16) where applicable. The owner of property on which an existing disposal facility is located must also submit documentation that a notation has been placed in the deed to the facility that will in perpetuity notify any potential purchasers of the property that the land has been used to manage hazardous wastes and its use is restricted (see 30 TAC 335.5). For hazardous waste disposal units that were closed before submission of the application, the applicant should submit documentation to show that plats and notices required under 40 CFR 264.116 and 264.119 have been filed.

A. Closure

This section applies to the owners and operators of all hazardous waste management facilities to be permitted. The applicant must close the facility in a manner that minimizes need for further maintenance and controls, or eliminates, to the extent necessary to protect human health and the environment, the post-closure release of hazardous waste, hazardous constituents, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere.

The facility type and type of unit to be closed can determine the level of detail sufficient for a closure plan.

For each unit to be permitted, complete Table VII.A. - Unit Closure and list the facility components to be decontaminated, possible methods of decontamination, and possible methods of disposal of wastes and waste residues generated during unit closure. All ancillary components must be included in calculating closure cost estimates.

Additionally, if the applicant plans to close a surface impoundment in accordance with 30 TAC 335.169(a)(1) and the impoundment does not comply with the liner requirements of 30 TAC Section 335.168(a) then the closure plan for the impoundment must include both a plan for complying with 30 TAC 335.169(a)(1) and a contingent plan for complying with 30 TAC 335.169(a)(2).

Guidance on design of a closure cap and final cover for landfills is given in TCEQ Technical Guideline No. 3, and EPA publication 530-SW-85-014 presents guidance on construction quality assurance of liner construction.

If a waste pile does not comply with the liner requirements of 30 TAC Section 335.170(a)(1) then the closure plan for the waste pile must include both a plan for complying with 40 CFR 264.258(a) and a contingent plan for complying with 40 CFR 264.258(b).

The final certification of closure of a land treatment unit may be prepared by an independent licensed Professional Geoscientist in lieu of an independent licensed Professional Engineer. [30 TAC 335.172(b)]

B. Closure Cost Estimate (including contingent closure) [30 TAC 335.178, 40 CFR 264.142]

This section applies to owners or operators of all hazardous waste facilities, except state and federal agencies. A detailed estimate, in current dollars, of the cost of closing the facility should be included in the report. The cost estimate must include the cost of closure at the point in the facilities operating life when the extent and manner of its operation would make closure the most expensive. The TCEQ has published Technical Guideline No. 10, Closure and Post-Closure Cost Estimates, for calculating closure costs which should be consulted. Closure costs should be developed on the basis of abandonment of the site at full capacity and closure activities to be conducted by a third party with no operable on-site equipment. The costs for closing each unit must be detailed.

1. If closure costs are based on contractor bids, the applicant should submit a copy of the bid specification and each contractor's response.

2. If closure costs are based on a detailed analysis, the applicant should submit details of item costs and number of each item, and details of costs for equipment rental, third party labor and supervision, transportation, analytical costs, etc. Provide an itemized cost on Table VII.B. - Unit Closure Cost Estimate for a complete, third party permitted facility closure.
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.

3. The closure plan may propose on-site disposal of wastes, residues, etc. during closure of a unit, and this may be executed if on-site capacity exists in other units during closure of a unit. However, the cost estimate for closure must be based on off-site shipment and disposal during closure of all wastes, waste residues, wastes generated by decontamination, contaminated stormwater, and leachate.

4. For each surface impoundment, waste pile, or tank system required to have a contingent closure plan, the cost for closure under the contingent closure plan should be detailed, as well as the cost of proposed closure. The more expensive of the cost of the proposed closure of a unit versus the cost of the contingent closure of the unit should be used in the total facility closure cost estimate.

C. Post-closure

This section applies to owners or operators of all hazardous waste disposal facilities. This section also applies to certain waste piles, tanks and surface impoundments from which the owner or operator intends to remove wastes at closure but which are required to have contingent post-closure plans.

For Landfills, and Waste Piles, Surface Impoundments, and Tanks Closed as a Landfill

1. Provide as-built plans and specifications for the final cover system, individually for each unit that is sealed, signed and dated by a licensed professional engineer with current Texas registration along with the Registered Engineering Firm's name and

Registration Number would satisfy this requirement; Other as-built plans and specifications for the unit may be submitted upon request.

2. Complete the following tables, as applicable:

   a. Complete Table VII.G - Post Closure Period.

   b. Complete Table V.G.1 - Landfills and list the landfills (and number of cells, if applicable) covered by this application. List the waste(s) managed in each unit and the rated capacity or size of the unit. If wastes are segregated in some manner, list the cell number in which wastes are placed next to each waste type.

   c. Table V.G.3. - Landfill Liner System and specify the type of liner used for the landfill.

   d. Table V.G.4. - Landfill Leachate Collection System used for the landfill.

   e. Table V.E.1 - Waste Piles and list the waste piles covered by this application. List the waste managed in each unit and the rated capacity or size of the unit.

   f. Table V.E. 3 - Waste Pile Liner System and specify the type of containment/liner system.

   g. Table V.D.1 - Surface Impoundments and list the surface impoundments, covered by this application, to be permitted. List the waste(s) managed in each unit and the rated capacity or size of each unit.

   h. Table V.D. 6. - Surface Impoundment Liner System for each surface impoundment to be permitted.

   i. Table V.C. Tanks and Tank Systems.

   Post-closure care of each hazardous waste management unit must continue for 30 years after the date of completing closure of the unit and must consist of monitoring and reporting of the groundwater monitoring systems in addition to the maintenance and monitoring of waste containment systems. Continuation of certain security requirements may be necessary after the date of closure. Post-closure use of property on or in which hazardous waste remains after closure must never be allowed to disrupt the integrity of the containment system. In addition, submit the following information.

   1. The post-closure care plan for a landfill or of a surface impoundment, waste pile, miscellaneous unit, or tank system closed with wastes or waste constituents left in place, or closed under a contingent closure plan, must demonstrate compliance with 30 TAC 335.174(b).

   2. The name, address, and phone number of the person or office to contact about the disposal facility during the post-closure period; and

   3. A discussion of the future use of the land associated with each unit.

   4. For landfills, surface impoundments, waste piles, and land treatment areas closed under interim status, submit the required documentation of 40 CFR 270.14(b)(14).

   5. Landfills, surface impoundments, waste piles and land treatment areas that received hazardous wastes after July 26, 1982 or for which closure was certified after January 26, 1983 must be included in post-closure care plans unless they have been determined to have closed by removal equivalent to the closure standards in 40 CFR 264 Subpart G. If such a demonstration has been made pursuant to 40 CFR 270.1(c)(5), but an equivalency determination has not been

made, please submit a copy of the demonstration documentation. If an equivalency determination has been made pursuant to 40 CFR 270.1(c)(6), applicant should submit a copy of the determination. Complete Table VII.C.5. - Land-Based Units Closed Under Interim Status for all land based units closed under interim status.

D. Post-closure Cost Estimate [40 CFR 264.144]

This section regarding post-closure cost estimate applies to owners or operators of all hazardous waste disposal facilities, except state and federal agencies, and certain waste piles, tank systems, and surface impoundments from which the owner or operator intends to remove wastes at closure, but which are required to have contingent closure and post-closure plans. A detailed estimate, in current dollars, of the annual cost of monitoring and maintenance of the facility in accordance with the applicable post-closure regulations must be included in the report. The TCEQ has published Technical Guideline No. 10 for calculating post-closure costs, which should be consulted. Costs should be developed in detail for 30 years of post-closure care activities to be conducted by a third party, for each applicable unit.

1. The applicant should submit details of item costs and number of each item for off-site disposal of leachate and bailed monitor well water, labor and supervision, monitor well sampling and analyses, inspection and repair of the cap(s), mowing and re-seeding of the vegetative cover, maintaining site security, etc. Provide an itemized cost estimate on Table VII.D. - Unit Post-Closure Cost Estimate for complete, third party permitted facility post-closure care.

2. 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.

3. Total annual cost of post-closure care for the facility including costs of contingent post-closure care should be multiplied by 30 years.

E. Closure and Post-Closure Cost Summary

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

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

TABLE OF APPENDICES

APPENDIX	TITLE
VII.A	Closure (Table VII.A and Closure Plan)
VII.B	Closure Cost Estimate (including contingent closure) (Table VII.B)
VII.C	Post-closure (Not Applicable)
VII.D	Post-closure Cost Estimate (Not Applicable)
VII.E	Closure and Post-Closure Cost Summary (Table VII.E.1)

Appendix VII.A:
CLOSURE
(TABLE VII.A AND CLOSURE PLAN)

Table VII.A. - Unit Closure

For each unit to be permitted, list the facility components to be decontaminated, the possible methods of decontamination, and the possible methods of disposal of wastes and waste residues generated during unit closure:

Equipment or HWM Unit	Possible Methods of Decontamination [1]	Possible Methods of Disposal [1]
T-F-9 Tank		
Tank and ancillary equipment	Steam, detergent, or high-pressure rinse	Onsite incinerator or offsite TSDF
Secondary containment	Steam, detergent, or high-pressure rinse	Onsite incinerator or offsite TSDF
R-F-70 Incinerator		
Combustion chamber/SNCR	Burning natural gas Steam, detergent, or high-pressure rinse Remove refractory	Offsite treatment storage and/or disposal facility (TSDF)
Evaporative cooler and ancillary equipment	Steam, detergent, or high-pressure rinse	Offsite TSDF
Baghouse	Remove bags and accumulated solids Steam, detergent, or high-pressure rinse	Offsite TSDF
Secondary containment	Steam, detergent, or high-pressure rinse	Offsite TSDF

[1] Applicants may list more than one appropriate method..

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CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

CLOSURE PLAN

DECEMBER 2025

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LIST OF ATTACHMENTS

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

40 CFR §264.112 requires an owner or operator of a hazardous waste management facility to develop a written closure plan. The plan must identify the steps necessary to perform partial and/or final closure of the facility at any point during its active life and must address the items identified in 40 CFR § 264.112(b). The purpose of the closure plan presented herein is to ensure that the tank and incinerator at the Huntsman Conroe Plant will be closed pursuant to 40 CFR Part 264 Subpart G.

This closure plan includes descriptions of how the tank and incinerator will be closed in accordance with 40 CFR § 264.111. The following information is provided in this plan:

- A description of the methods to be used during partial or final closure;
- An estimate of the maximum inventory of hazardous wastes ever onsite over the active life of the units;
- Methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of the offsite hazardous waste management units to be used;
- A description of the steps needed to remove or decontaminate any hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including methods for decontaminating piping and equipment, removing contaminated soils, and sampling and testing surrounding soils, as well as criteria for determining the extent of decontamination required to satisfy the closure performance standard and 40 CFR § 264.112(b)(5);
- A detailed description of other activities necessary during the closure period to ensure that all run-on and run-off waters are controlled; and
- An example schedule for closure of a unit, including the total estimated time required to close the unit and the time required for intervening closure activities, which allows tracking of the progress of partial or final closure.

The remaining sections of this plan provide the following information:

- Section 2.0 discusses the closure performance standards;
- Section 3.0 describes the hazardous waste management units;
- Section 4.0 specifies maximum waste inventories;

- Section 5.0 describes the specific closure procedures;
- Section 6.0 presents a schedule for closure;
- Section 7.0 addresses post closure;
- Section 8.0 presents the closure cost estimates;
- Section 9.0 discusses certifications;
- Section 10.0 addresses amendments to the plan; and
- Attachment A contains the closure cost calculations.

2.0 CLOSURE PERFORMANCE STANDARDS

Huntsman intends to close the tank and incinerator as required by 40 CFR § 264.111. When implemented, the closure plan will achieve the following:

- Minimize the need for further maintenance;
- Eliminate the potential for any post-closure escape of hazardous waste or hazardous constituents to the environment; and
- Comply with 40 CFR Part 264 Subpart G requirements and unit-specific closure standards.

Closure will be accomplished by:

- Physically removing contaminated equipment for offsite treatment/disposal;
- Cleaning the equipment to established background standards;
- Cleaning to risk based standards if cleaning to background standards cannot be accomplished; and/or
- Cleaning by application of the debris standards codified in 40 CFR § 268.48.

3.0 FACILITY DESCRIPTION

The Conroe Plant operates one hazardous waste storage tank and one liquid hazardous waste incinerator. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator.

The T-F-9 Tank is a non-pressurized, vertical, cylindrical vessel with a bulbed bottom and slightly sloped steel top cover. The tank is equipped with four 16-inch wide interior wall baffles, a centered vertical rotating agitator, a fixed roof, two manways, and numerous flanges to accommodate process connections, venting, level indication and control instrumentation. The T-F-9 Tank is described in Table 1.

TABLE 1
TANK DIMENSIONS AND CAPACITIES

TANK ID	DESCRIPTION	INSTALLATION DATE	DIAMETER (FEET)	HEIGHT (FEET)	CAPACITY (GALLONS)	MATERIAL OF CONSTRUCTION
T-F-9	Non-pressurized vertical cylindrical tank	1988	16 ft	22 ft	30,000	Carbon steel

The R-F-70 Incinerator is a two-stage horizontal liquid injection incinerator manufactured by Von Roll Inc. It was installed at the Conroe Plant in 2003 through 2004. The unit has a maximum design capacity of 38.9 million British thermal units per hour (MMBtu/hr). The incinerator was designed for the treatment of non-hazardous and hazardous liquid waste in a staged combustion process to limit nitrogen oxide (NO_x) emissions. The combustion chamber is followed by a selective non-catalytic reduction (SNCR) chamber, an evaporative cooler, a fabric filter baghouse, a recirculated flue gas (RFG) fan, an induced draft (ID) fan, and an exhaust stack. The two-zone combustion chamber is approximately 24 feet in length with an inside diameter of approximately 10.5 feet.

4.0 MAXIMUM WASTE INVENTORY

Waste is stored in the T-F-9 Tank. No waste is stored in the R-F-70 Incinerator. Table 2 presents the maximum waste inventory for each hazardous waste management unit. The maximum waste inventory is based on the permitted capacity for each unit. The maximum waste inventories were used as the final quantities of waste to be disposed in the closure cost estimates presented in Section 9.0 and Attachment A.

TABLE 2
MAXIMUM HAZARDOUS WASTE INVENTORY

UNIT	CAPACITY (GALLONS)
T-F-9 Tank	30,000
R-F-70 Incinerator	0

5.0 CLOSURE PROCEDURES

This section describes the procedures that will be used for closure of the hazardous waste management units. During the active life of the Conroe Plant, it may become necessary to take one unit out of service before the final closure of the facility. If this situation develops, Huntsman will amend this Closure Plan to reflect a partial closure of the facility. Any equipment permanently taken out of service during a partial closure will either be decontaminated or removed and disposed of in accordance with the procedures described below for complete closure.

The following sections describe the procedures that will be used for closure of the T-F-9 Tank and the R-F-70 Incinerator.

5.1 T-F-9 TANK

The tank closure will include the following basic steps:

- Cease all the waste feed to the tank;
- Send waste inventory to onsite incinerator or offsite disposal, as appropriate;
- Decontaminate tank interior;
- Collect and analyze rinsate sample(s);
- Repeat cleaning and rinsate sampling until tank meets clean closure criteria as discussed in Section 2.0;
- Decontaminate secondary containment area;
- Collect and analyze soil samples to demonstrate clean closure performance beneath the concrete slab, if necessary; and
- Perform closure certification.

5.1.1 INVENTORY REMOVAL

At closure, feed to the tank will be discontinued, and the flow from the tank continued until all the hazardous waste that can be removed has been removed. If appropriate, the hazardous waste will be destroyed onsite in the incinerator. Waste that cannot be fed to the incinerator will be shipped offsite for proper treatment and/or disposal. All waste will be properly manifested, labeled, and shipped as required by hazardous waste management and Department of Transportation (DOT) regulations.

5.1.2 DECONTAMINATION PROCEDURES

All interior components of the tank and piping that have been in contact with hazardous waste will be flushed to remove residual wastes. A solvent or detergent capable of removing the residual contaminants will be used to clean all equipment that has been in contact with the hazardous waste. The tank and ancillary equipment will be flushed with clean water until rinsate samples indicate the tank

has been cleaned of residual hazardous waste. A representative sample of the final rinsate will be sent to an offsite laboratory for analysis. Decontamination of the equipment will be deemed complete when the concentrations of chosen analytes in the rinsate are less than or equal to the Tier 1 residential protective concentration levels (PCLs) for Remedy Standard A under 30 TAC Chapter 350, Texas Risk Reduction Program (TRRP).

After successfully cleaning the internal portions of the tank, personnel will clean the secondary containment area and other ancillary equipment. These components will be decontaminated using a solvent or detergent capable of removing the residual contaminants and flushed with clean water. A representative sample of the final rinsate will be sent to an offsite laboratory for analysis. Decontamination of the containment area will be deemed complete when the concentrations of chosen analytes in the rinsate are less than or equal to the Tier 1 residential PCLs for Remedy Standard A under the TRRP. Huntsman may choose to characterize and remove the containment area concrete for disposal in an appropriate facility in lieu of decontamination.

All rinsate will be disposed of according to the results of the analyses. Wastewater generated during closure will be sent to the onsite wastewater treatment facility or an appropriate offsite waste disposal facility.

5.1.3 Dismantling of Equipment

Once decontamination is confirmed, the tank may be dismantled and sent for scrap metal recovery, or the tank may be left in place for other service. If equipment cannot be cleaned to the required standards, it will be disposed of at an approved offsite landfill.

5.1.4 Contamination Assessment and Remediation

Contamination assessment will be conducted to determine the extent to which the area around the tank may be impacted and therefore subject to remediation. Assessment establishes the rate, extent, and nature of soil impact by hazardous waste constituents. The assessment will be conducted in accordance with the TRRP.

There is presently no exposed soil in the vicinity of the tank. Assessment will be conducted on the soil under the concrete containment area by way of a two-step process.

Step 1 – Assessment via Operating Record Survey

Huntsman maintains a program to inspect the tank area for spills or releases. If spills or releases are found, they are cleaned up in order to prevent exposure and soil contamination. Upon closure, Huntsman will survey its historical operating records to determine 1) the occurrence of spills, 2) the effectiveness of clean-up, and 3) if waste constituents from the spills may have permeated the concrete and impacted the soil.

If the operating record survey indicates that spills were effectively cleaned up (*e.g.*, by comparison of the amount spilled with the amount recovered) and that the soil under the containment area concrete

has not been impacted, the assessment may end with this step. The results of this survey will be submitted in association with a closure report.

Step 2 – Assessment via Sampling and Analysis

If the operating record survey indicates that spills have not been effectively cleaned up and that the soil under the containment area and thus underlying soil may have been impacted, the assessment will continue with sampling and analysis. Sampling locations will be identified in the containment area where likely spill impact has occurred based upon the operating record survey.

Soil samples will be collected by first jackhammering or hydraulic augering the concrete to expose the soil. Soil sampling will follow with the aid of a push-probe-type drilling rig, a hand auger, or trowel. Sampling tools will be decontaminated prior to their first use and between each sampling location.

Each sample will be analyzed for constituents of concern. Waste constituent impact of the soil will be confirmed if analytical results of the soil samples exceed Tier 1 residential PCLs for Remedy Standard A under the TRRP.

5.1.5 REMEDIATION

Soils found to be impacted will be excavated with a trackhoe, backhoe, or similar equipment, as appropriated, for the TRRP remediation option selected. Removed soils will be transported to a disposal facility. The type(s) of offsite disposal facilities to be used include permitted hazardous waste incinerators and permitted hazardous waste landfills.

5.2 R-F-70 INCINERATOR

The incinerator closure will include the following basic steps:

- Cease waste feed to the incinerator;
- Operate incinerator firing only auxiliary fuel for at least four hours;
- Shutdown incinerator and allow to cool;
- Decontaminate incinerator interior and ancillary equipment;
- Collect and analyze rinsate sample(s);
- Repeat cleaning and rinsate sampling until equipment meets clean closure criteria as discussed in Section 2.0;
- Decontaminate curbed concrete area;
- Collect and analyze soil samples to demonstrate clean closure performance beneath the concrete slab, if necessary; and
- Perform closure certification.

5.2.1 INVENTORY REMOVAL

As discussed previously, there will be no waste inventory in the incinerator at closure. Therefore, there is no need for waste removal.

5.2.2 DECONTAMINATION PROCEDURES

The incinerator will be subjected to a burn-out period of not less than four hours at a combustion chamber temperature of not less than the minimum allowable temperature applicable to waste feed operations. No waste will be fed during the burn-out period.

Following combustion chamber cooling, and once the combustion chambers can be safely entered, the refractory and any ash will be removed. Removed refractory and ash will be characterized and disposed of properly. The bags will be removed from the baghouse, characterized, and disposed of properly. All waste will be characterized in accordance with Texas Commission on Environmental Quality (TCEQ) Waste Classification Rules codified in 30 TAC Chapter 335 Subchapter R and disposed of properly. Hazardous waste will be properly manifested, labeled, and shipped as required by hazardous waste management and DOT regulations.

All internal components of the incineration system that have been in contact with hazardous waste, the flames produced by combustion, or the exhaust gases produced by combustion will be flushed to remove hazardous waste residues. A solvent or detergent capable of removing the residual contaminants will be used to clean all piping and fluid handling equipment that has been in contact with the hazardous waste. The equipment will be flushed with clean water until rinsate samples indicate the unit has been cleaned of residual hazardous waste. A representative sample of the final rinsate will be sent to an offsite laboratory for analysis. Decontamination of the equipment will be deemed complete when the concentrations of chosen analytes in the rinsate are less than or equal to the Tier 1 residential PCLs for Remedy Standard A under the TRRP.

As an alternative to solvent/detergent washing, decontamination of the combustion chamber may be achieved by complete removal of the refractory. Removed refractory will be characterized in accordance with TCEQ Waste Classification Rules codified in 30 TAC Chapter 335 Subchapter R and disposed of properly.

After successfully cleaning the internal portions of the incineration system, personnel will clean the slab and other ancillary equipment. These components will be decontaminated using a solvent or detergent capable of removing the residual contaminants and flushed with clean water. A representative sample of the final rinsate will be sent to an offsite laboratory for analysis. Decontamination of the slab will be deemed complete when the concentrations of chosen analytes in the rinsate are less than or equal to the Tier 1 residential PCLs for Remedy Standard A under the TRRP. Huntsman may choose to characterize and remove the concrete slab for disposal in an appropriate facility in lieu of decontamination.

All rinsate will be disposed of according to the results of the analyses. Wastewater generated during closure will be sent to the onsite wastewater treatment facility or an appropriate offsite waste disposal facility.

5.2.3 Dismantling of Equipment

Once decontamination is confirmed, the incineration system may be dismantled and sent for scrap metal recovery, or the incineration system may be left in place for other service. If equipment cannot be cleaned to the required standards, it will be disposed of at an approved offsite landfill.

5.2.4 Contamination Assessment and Remediation

Contamination assessment will be conducted to determine the extent to which the area around the incinerator may be impacted and therefore subject to remediation. Assessment establishes the rate, extent, and nature of soil impact by hazardous waste constituents. The assessment will be conducted in accordance with the TRRP.

There is presently no exposed soil in the vicinity of the incinerator. Assessment will be conducted on the soil under the concrete foundation and under the concrete around the incinerator by way of a two-step process.

Step 1 – Assessment via Operating Record Survey

Huntsman maintains a program to inspect the incinerator area for spills or releases. If spills or releases are found, they are cleaned up in order to prevent exposure and soil contamination. Upon closure, Huntsman will survey its historical operating records to determine 1) the occurrence of spills, 2) the effectiveness of clean-up, and 3) if waste constituents from the spills may have permeated the concrete and impacted the soil.

If the operating record survey indicates that spills were effectively cleaned up (*e.g.*, by comparison of the amount spilled with the amount recovered) and that the soil under the concrete has not been impacted, the assessment may end with this step. The results of this survey will be submitted in association with a closure report.

Step 2 – Assessment via Sampling and Analysis

If the operating record survey indicates that spills have not been effectively cleaned up and that the soil under the concrete and thus underlying soil may have been impacted, the assessment will continue with sampling and analysis. Sampling locations will be identified around the incinerator where likely spill impact has occurred based upon the operating record survey.

Soil samples will be collected by first jackhammering or hydraulic augering the concrete to expose the soil. Soil sampling will follow with the aid of a push-probe-type drilling rig, a hand auger, or trowel. Sampling tools will be decontaminated prior to their first use and between each sampling location.

Each sample will be analyzed for constituents of concern. Waste constituent impact of the soil will be confirmed if analytical results of the soil samples exceed Tier 1 residential PCLs for Remedy Standard A under the TRRP.

5.2.5 REMEDIATION

Soils found to be impacted will be excavated with a trackhoe, backhoe, or similar equipment, as appropriated, for the TRRP remediation option selected. Removed soils will be transported to a disposal facility. The type(s) of offsite disposal facilities to be used include permitted hazardous waste incinerators and permitted hazardous waste landfills.

6.0 SCHEDULE FOR CLOSURE

The closure process will begin with notification to the TCEQ of Huntsman's intent to close and an expected date closure begins (*i.e.*, waste removal begins). Closure will be completed with the submittal of a closure report including professional engineer's certification (final closure only). In the case of final closure of all hazardous waste management units, this report and certification must be submitted within 60 days of completion of onsite closure activities. Table 3 provides an example schedule for the closure of one of the waste management units. This schedule is an example only. Actual closure may differ in schedule but will comply with the applicable scheduling requirements set forth in 40 CFR Part 264.

TABLE 3
EXAMPLE SCHEDULE FOR CLOSURE

ACTIVITY/MILESTONE	DAYS FROM SUBMITTAL OF NOTIFICATION
Submittal of notification of closure	0
Most recent receipt of waste	0
Final receipt of waste	180
Begin closure	180
Complete waste removal	180
Complete decontamination	200
Complete demolition	270
Complete contamination assessment sampling and analysis	300
Complete contamination closure report	330
Submit closure report	360
Certification of closure	420

7.0 POST-CLOSURE

The tank and incinerator are not land-based disposal or treatment units. Therefore, these units are not subject to post-closure plan requirements.

8.0 CLOSURE COST ESTIMATE

The estimated cost of closing the T-F-9 Tank is $216,000, and the estimated cost of closing the R-F-70 Incinerator is $167,000. These estimates are in 2024 dollars. The cost calculations are presented in Attachment A. The attachment contains the unit costs and key assumptions used in the closure cost estimate. The cost estimate was prepared in accordance with 40 CFR § 264.142. The following assumptions were used in the estimate:

- All closure activities and supervision are performed by an independent third party;
- All wastes generated in the closure will be shipped offsite to an authorized storage, processing, or disposal facility;
- All onsite monitoring equipment associated with the waste management are inoperable;
- Unit components have no salvage value;
- Decontamination is conducted twice, along with post-wash sampling and analysis;
- Assessment via sampling and analysis is necessary and three discrete sampling locations are identified during the operating record survey; and
- Certification of closure will be obtained by a professional engineer registered in the State of Texas.

A summary of the closure cost estimate is provided in Table 4. Calculation and assumptions supporting this estimate are included in Attachment A.

TABLE 4
CLOSURE COST ESTIMATE

TASK	T-F-9 TANK	R-F-70 INCINERATOR
Waste removal	$ 123,000	$ 0
Burn out period	$ 0	$ 700
Refractory/baghouse debris removal	$ 0	$ 63,400
Equipment and surface decontamination	$ 13,100	$ 20,200
Verification sampling and analysis of rinsate	$ 4,000	$ 4,000
Transport and disposal of rinsate	$ 13,600	$ 20,800
Soil/concrete contamination assessment	$ 9,100	$ 9,100
Transport and disposal of soil	$ 6,600	$ 6,600
Third party oversight	$ 19,500	$ 19,500
Closure certification report	$ 7,500	$ 7,500
Subtotal	$ 196,400	$ 151,800
Contingency (10 percent)	$ 19,600	$ 15,200
Total	$ 216,000	$ 167,000

Closure costs estimates subsequent to 2024 will be adjusted once annually for inflation. The adjusted closure cost estimate is obtained using the inflation factor calculated from the annual Implicit Price Deflator (IPD) for Gross National Product. The inflation factor is calculated by dividing the latest IPD by the IPD for the previous year. This inflation factor is then multiplied by the closure cost estimate for the preceding year.

While different types of IPD's are available, the IPD for Gross National Product must be used. The IPD is published by the US Department of Commerce Bureau of Economic Analysis in the Survey of Current Business. The IPD is published quarterly. Annual IPD's are typically published at the end of the first quarter (March) for the previous year.

9.0 CERTIFICATION

An independent professional engineer licensed in Texas is required to certify that closure procedures are performed in accordance with this closure plan. Site inspections will be performed by the independent registered professional engineer to verify the processes and procedures which are being utilized to implement this plan.

Within 60 days of completion of final closure, Huntsman will submit a certification to the administrative authority, signed by Huntsman and the independent registered professional engineer, that the hazardous waste management units have been closed in accordance with the specifications of the closure plan.

10.0 AMENDMENT OF CLOSURE PLAN

Huntsman will amend the closure plan whenever:

- Changes in the operating plan or facility design affect the closure procedures;
- There is a change in the expected year of facility closure; and/or
- Modifications to the plan become necessary due to partial or final closure activities.

Any proposed changes will be promptly submitted to the TCEQ for approval in accordance with 40 CFR § 264.112(c). A copy of the closure plan and all plan revisions will be maintained at the Huntsman facility until certification of closure completeness has been submitted to and approved by the TCEQ.

Attachment A:
CLOSURE COST ESTIMATE CALCULATIONS

	T-F-9 Tank	R-F-70 Incinerator
Waste removal	$123,000	$0
Burn out period	$0	$700
Refractory/baghouse debris removal	$0	$63,400
Decontamination of equipment and concrete floor	$13,100	$20,200
Verification sampling and analysis of rinsate	$4,000	$4,000
Transport and disposal of rinsate	$13,600	$20,800
Soil/concrete contamination assessment	$9,100	$9,100
Transport and disposal of soil	$6,600	$6,600
Third party oversight	$19,500	$19,500
Closure certification report	$7,500	$7,500
Subtotal	$196,400	$151,800
Contingency (10% minimum)	$19,600	$15,200
Total Closure Cost	$216,000	$167,000

$383,000

CLOSURE OF T-F-9 TANK

	Unit Cost	Quantity	Unit	Cost	Estimated Cost
Waste removal	$4.10	30,000	gal	$123,000	$123,000
Decontamination of equipment and containment area:					$13,100
1. Steam, detergent, and/or high-pressure rinsing of equipment	$1.50	1,541	sq ft	$2,312	
2. Steam, detergent, and/or high-pressure rinsing of containment area	$1.50	7,200	sq ft	$10,800	
Verification rinsate sampling/analysis	$1,000.00	4	sample	$4,000	$4,000
Transport and disposal of rinsate (assume 2 gal/sq ft)					$13,600
1. Transport hazardous waste by tanker trailer (5000 gal/load)	$1,000.00	4	load	$4,000	
2. Disposal of bulk liquid by RCRA incineration facility	$0.55	17,483	gal	$9,616	
Sampling and analysis of soil (if needed)					$9,100
1. Boring equipment rental, 2 day rental	$320.00	1	day	$320	
2. Boring/soil sampling labor, 4 samples, 2 man crew	$75.00	10	man-hour	$750	
3. Analysis of soil samples	$2,000.00	4	sample	$8,000	
Soil removal (assume 10 tons)					$6,600
1. Soil removal equipment	$640.00	2	day	$1,280	
2. Soil removal labor	$75.00	20	man-hour	$1,500	
3. Transport soil to RCRA Subtitle C landfill	$2,825.00	1	rolloff	$2,825	
4. Disposal of soil at RCRA Subtitle C landfill	$100.00	10	ton	$1,000	
Third party oversight	$1,300.00	15	day	$19,500	$19,500
Closure certification report	$7,500.00	1	lump sum	$7,500	$7,500

Subtotal	$196,400
Contingency (10%)	$19,600
Total	$216,000

Surface area calculation:

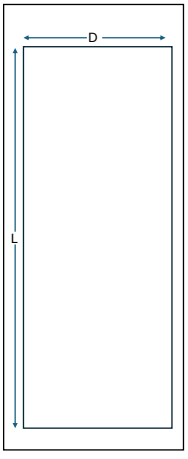
D =	16.0 feet
H =	22.0 feet
Surface area =	1,284.6 sq feet
Add 20% for ancillary =	256.9 sq feet
Total surface area =	1,541.5 sq feet
Containment area =	7,200.0 sq feet

CLOSURE OF R-F-70 INCINERATOR

	Unit Cost	Quantity	Unit	Cost	Estimated Cost
Waste removal	$0.00	0	lb	$0	$0
Burn out period (40 MMBtu/hr design, 4 hours)	$4.00	160	MMBtu	$640	$700
Refractory/baghouse bags removal:					$63,400
1. Labor for removal	$75.00	40	man-hour	$3,000	
2. Transport rolloffs to landfill facility	$2,825.00	16	rolloff	$45,200	
2. Dispose of rolloffs at landfill facility	$100.00	152	ton	$15,214	
Decontamination of equipment and concrete:					$20,200
1. Steam, detergent, and/or high-pressure rinsing of equipment	$1.50	6,234	sq ft	$9,352	
2. Steam, detergent, and/or high-pressure rinsing of concrete slab	$1.50	7,200	sq ft	$10,800	
Verification rinsate sampling/analysis	$1,000.00	4	sample	$4,000	$4,000
Transport and disposal of rinsate (assume 2 gal/sq ft)					$20,800
1. Transport hazardous waste by tanker trailer (5000 gal/load)	$1,000.00	6	load	$6,000	
2. Disposal of bulk liquid by RCRA incineration facility	$0.55	26,869	gal	$14,778	
Sampling and analysis of soil (if needed)					$9,100
1. Boring equipment rental, 2 day rental	$320.00	1	day	$320	
2. Boring/soil sampling labor, 4 samples, 2 man crew	$75.00	10	man-hour	$750	
3. Analysis of soil samples	$2,000.00	4	sample	$8,000	
Soil removal (assume 10 tons)					$6,600
1. Soil removal equipment	$640.00	2	day	$1,280	
2. Soil removal labor	$75.00	20	man-hour	$1,500	
3. Transport soil to landfill	$2,825.00	1	rolloff	$2,825	
4. Disposal of soil at landfill	$100.00	10	ton	$1,000	
Third party oversight	$1,300.00	15	day	$19,500	$19,500
Closure certification report	$7,500.00	1	lump sum	$7,500	$7,500

Subtotal	$151,800
Contingency (10%)	$15,200
Total	$167,000

Surface area calculation:



L =	24.0	feet
D =	10.5	feet
Incinertaor surface area =	2,078.2	sq feet
Add 200% for downstream =	4,156.3	sq feet
Total surface area =	6,234.5	sq feet
Concrete slab area =	7,200.0	sq feet
Refractory =	10.5	feet ID
	1.0	feet refractory
	1,659	cubic feet
	61	cubic yards
	160	lb/cu ft
	265,402	lb
	133	ton
Baghouse debris =	18	cubic yards
	80	lb/cu ft
	38,880	lb

Assumptions

Natural gas cost	4.00	$/MMBtu	EIA.GOV industry average for Texas 2025
Transport (liquid waste)	1,000.00	$/load	Veolia - Transportation-Bulk-Liquid, 2025 cost
Transport (solid waste)	2,825.00	$/load	Veolia - Transportation-Bulk-Rolloff, 2025 cost
Disposal (aqueous liquid bulk)	0.55	$/gal	Average vendor quote
Disposal (hazardous organic liquid bulk)	4.10	$/gal	Veolia - Fuel blending, >5,000 Btu/lb, <10% halogen
Disposal - (hazardous solids bulk)	250.00	$/ton	Veolia - Landfill, Haz Solids for Direct Landfill
Disposal - (non-hazardous solids bulk)	100.00	$/ton	Veolia - Nonhaz Solids for Direct Subtitle C Landfill, 2025 cost
Labor	75.00	$/man-hour	Heritage Environmental Services estimate 2025
Steam, detergent, and/or high-pressure rinsing	1.50	$/sq ft	Average vendor quote
Concrete core equipment rental	320.00	$/day	Inflation adjusted estimate
Soil removal equipment	640.00	$/day	Inflation adjusted estimate
Liquid sampling/analysis	1,000.00	$/sample	Average vendor quote
Soil sampling/analysis	2,000.00	$/sample	Average vendor quote
Oversight	1,300.00	$/day	Inflation adjusted estimate
Certification report	7,500.00	$/item	Inflation adjusted estimate

Appendix VII.B:
CLOSURE COST ESTIMATE (INCLUDING CONTINGENT CLOSURE)
(TABLE VII.B)

Table VII.B. - Unit Closure Cost Estimate

Task	Cost
Name: T-F-9 Tank	
Waste removal	$ 123,000
Equipment and surface decontamination	$ 13,100
Verification sampling and analysis of rinsate	$ 4,000
Transport and disposal of rinsate	$ 13,600
Soil/concrete contamination assessment	$ 9,100
Transport and disposal of soil	$ 6,600
Third party oversight	$ 19,500
Closure certification report	$ 7,500
Subtotal	$ 196,400
Contingency (10% minimum)	$ 19,600
Total Closure Cost Year 2025	$ 216,000

Task	Cost
Name: R-F-70 Incinerator	
Waste removal	$ 0
Burn out period	$ 700
Refractory/baghouse debris removal	$ 63,400
Equipment and surface decontamination	$ 20,200
Verification sampling and analysis of rinsate	$ 4,000
Transport and disposal of rinsate	$ 20,800
Soil/concrete contamination assessment	$ 9,100
Transport and disposal of soil	$ 6,600
Third party oversight	$ 19,500
Closure certification report	$ 7,500
Subtotal	$ 151,800
Contingency (10% minimum)	$ 15,200
Total Closure Cost Year 2025	$ 167,000

Appendix VII.E:
CLOSURE AND POST-CLOSURE COST SUMMARY (TABLE VII.E.1)

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

Existing Unit Closure Cost Estimate	
Unit	Cost
T-F-9 Tank	$ 216,000
R-F-70 Incinerator	$ 167,000
	$ 0
	$ 0
	$ 0
	$ 0
Total Existing Unit Closure Cost Estimate [1] Year 2024	$ 383.000

Proposed Unit Closure Cost Estimate	
Unit	Cost
	$ 0
	$ 0
	$ 0
	$ 0
	$ 0
	$ 0
Total Proposed Unit Closure Cost Estimate [1] Year 2024	$ 0

[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 recalculating the revised total cost in current dollars.

VIII. FINANCIAL ASSURANCE

VIII. Financial Assurance

Provide all Part B responsive information in Appendix VI. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

A. Financial Assurance Information Requirements for all Applicants (30 TAC Chapter 37, Subchapter P, 305.50(a)(4)(A-E), 335.152(a)(6) and 335.179)

1. Financial Assurance for Closure

   An owner or operator must establish financial assurance for the closure of the facility no later than 60 days prior to the first receipt of waste [30 TAC Section 37.31(a)]. Please refer to 30 TAC Chapter 37, Subchapter P, for the financial assurance requirements for closure and provide a signed statement from an authorized signatory per 30 TAC 305.44 regarding how the owner or operator will comply with this provision.

   If a financial mechanism has been obtained, provide a copy of the mechanism.

   For applications involving a permit transfer, the new owner or operator must provide a financial assurance mechanism (in original form) satisfactory to the TCEQ executive director. Prior to the executive director issuing the permit modification transferring the permit, the new owner or operator must provide proof of financial assurance in compliance with 30 TAC Section 305.64 (g) and Chapter 37, Subchapter P.

2. Financial Assurance for Post-Closure Care (applicable to disposal facilities and contingent post-closure care facilities only)

   An owner or operator subject to post-closure monitoring or maintenance requirements must establish financial assurance for the post-closure care of the facility no later than 60 days prior to the first receipt of waste [30 TAC Section 37.31(a)]. Please refer to 30 TAC Chapter 37, Subchapter P for the financial assurance requirements for post-closure and provide a signed statement from an authorized signatory per 30 TAC 305.44 regarding how the owner or operator will comply with this provision.

   If a financial mechanism has been obtained, provide a copy of the mechanism.

   For applications involving a permit transfer, the new owner or operator must provide a financial assurance mechanism (in original form) satisfactory to the TCEQ executive director. Prior to the executive director issuing the permit modification transferring the permit, the new owner or operator must provide proof of financial assurance in compliance with 30 TAC Section 305.64 (g) and Chapter 37, Subchapter P.

3. Financial Assurance for Corrective Action

   An owner or operator must establish financial assurance for corrective action of the facility no later than 60 days after the permit or order requiring the corrective action financial assurance is signed by the executive director or commission [30 TAC Section 37.31(b)]. Please refer to 30 TAC Chapter 37, Subchapter P, for the financial assurance requirements for closure and provide a signed statement from an authorized signatory per 30 TAC 305.44 regarding how the owner or operator will comply with this provision and indicate below the type of financial assurance mechanism to cover corrective action for the

facility.

If a financial mechanism has been obtained, provide a copy of the mechanism.

For applications involving permit transfers, the new owner or operator must provide a financial assurance mechanism (in original form) satisfactory to the TCEQ executive director. Prior to the executive director issuing the permit modification transferring the permit, the new owner or operator must provide proof of financial assurance in compliance with 30 TAC Section 305.64 (g) and Chapter 37, Subchapter P.

4. Liability Requirements (not required for post-closure care)

All owners or operators must establish financial assurance for third party sudden liability coverage of the facility no later than 60 days prior to the first receipt of waste [30 TAC Section 37.31(a)]. Owners or operators of disposal facilities must establish financial assurance for third party sudden and nonsudden liability coverage of the facility no later than 60 days prior to the first receipt of hazardous waste. Please refer to 30 TAC Chapter 37, Subchapter P, for the financial assurance requirements for liability coverage, and provide a signed statement from an authorized signatory per 30 TAC 305.44 regarding how the owner or operator will comply with this provision.

If a financial mechanism has been obtained, provide a copy of the mechanism.

For applications involving a permit transfer, the new owner or operator must provide a financial assurance mechanism (in original form) satisfactory to the TCEQ executive director. Prior to the executive director issuing the permit modification transferring the permit, the new owner or operator must provide proof of financial assurance in compliance with 30 TAC Section 305.64 (g) and Chapter 37, Subchapter P.

B. Applicant Financial Disclosure Statements for a new permit, permit amendment, or permit modification, or permit renewal (30 TAC 305.50(a)(4))

Refer to the Supplemental Technical Information Guidance for Applicants Subject to Financial Capability Requirements, included in Section VIII.B., and the requirements listed below as you complete this section.

1. Provide information required in 30 TAC 305.50(a)(4), as applicable to the application request.

2. Complete Table VIII.B. if requesting capacity expansion or new construction.

3. For new commercial hazardous waste management facility applications, a written statement signed by an authorized signatory per 30 TAC 305.44 explaining how the applicant intends to provide emergency response financial assurance per 30 TAC 305.50(a)(12)(C) or (D).

4. For renewal applications with no capacity expansion, please complete and submit the attached Financial Disclosure Letter.

Information for Applicants Subject to Financial Capability Requirements

Certain applications involving Hazardous Waste facilities are subject to review of the applicant's financial ability to construct, operate, and/or close the facility, perform post-closure care and corrective action at the facility in accordance with State law as specified in

Section 361.085 of the Texas Health and Safety Code. TCEQ refers to these reviews as financial capability reviews. This document summarizes and clarifies the information required in an application to meet the TCEQ requirements of 30 Texas Administrative Code (TAC) 305.50.

Information requirements vary depending on the type of financial information available to applicants, primarily whether audited financial statements are available as well as the type of application submitted. For each scenario described below, financial information must be provided for the specific applicant.

I. New Facilities, Facility Expansions and Permit Transfers

A. Publicly traded Entities

1. Securities and Exchange Commission (SEC) Form 10-Ks

   This portion of the requirement calls for the two most recent 10-K reports filed.

2. SEC Form 10-Q

   This portion of the requirement calls for a copy of the most recent quarterly report.

3. Explanation statement

   This portion of the requirement calls for a statement signed by an authorized signatory [as described in 30 TAC 305.44(a)] explaining in detail how the applicant demonstrates sufficient financial resources to construct, safely operate, properly close, perform post-closure care, perform corrective action and provide adequate liability coverage for the facility. This statement must also address how the closure, post-closure, corrective action, and liability coverage financial assurance requirements of Chapter 37, Subchapter P will be met. (ie. which financial assurance mechanism is or will be used).

4. Construction capital cost estimates

   This portion of the requirement calls for estimates of capital costs for expansion and/or initial construction if the application encompasses facility expansion, capacity expansion, or new construction.

B. Privately held entities with audited financial statements

1. Audited financial statements

   This portion of the requirement calls for complete copies of the audited financial statements for each of the most recent two fiscal years. If an audit has not been completed for one of the previous two years, a complete copy of the fiscal year end financial statement and federal tax return may be substituted in lieu of the audit not performed. The tax return must be certified by original signature of an authorized signatory as being a "true and correct copy of the return filed with the Internal Revenue Service." Financial statements must be prepared consistent with generally accepted accounting principles and include a balance sheet, income statement, cash flow statement, notes to the financial statement, and an accountant's opinion letter.

2. Quarterly financial statement

   This portion of the requirement calls for a complete copy of the most current quarterly financial statement prepared consistent with generally accepted accounting principles. Internally prepared statements are satisfactory.

3. Supplementary information statement

   This portion of the requirement calls for a written statement detailing the information that would normally be found in SEC's Form 10-K including descriptions of the business and its operations; identification of any affiliated relationships; credit agreements and terms; any legal proceedings involving the applicant; contingent liabilities; and significant accounting policies.

4. Construction capital cost estimates

   This portion of the requirement calls for estimates of capital costs for expansion and/or initial construction if the application encompasses facility expansion, capacity expansion, or new construction.

5. Explanation statement

   This portion of the requirement calls for a statement signed by an authorized signatory [as described in 30 TAC 305.44(a)] explaining in detail how the applicant demonstrates sufficient financial resources to construct, safely operate, properly close, perform post-closure care, perform corrective action and provide adequate liability coverage for the facility. This statement must also address how the closure, post-closure, corrective action, and liability coverage financial assurance requirements of Chapter 37, Subchapter P will be met (ie. which financial assurance mechanism is or will be used).

C. Entities without audited financial statements or entities choosing not to provide the information listed above

1. Financial Plan

   This portion of the requirement calls for a financial plan (including balance sheets listing assets, liabilities and capital accounts) sufficiently detailed to clearly demonstrate that the applicant will be in a position to readily secure financing for construction, operation, and closure, post-closure, and corrective action if the permit is issued. At least 3 balance sheets should be included as of: a) approximately the date of the permit application, b) 12 months after any construction is completed (or assumption of operational control for a permit transfer), and c) 24 months after any construction is completed (or assumption of operational control for a permit transfer).

2. Letters of opinion

   The submitted financial plan must be accompanied by original letters of opinion from two financial experts, not otherwise employed by the applicant, who have the demonstrated ability to either finance the facility or place the required financing. If the permit action sought involves construction of a new facility or expansion of an existing facility, the opinion letters must certify that financing is obtainable within 180 days of permit approval and include the time schedule contingent upon permit finality for securing the financing as well as certify the financial plan is reasonable. Even if the application does not involve a facility or capacity expansion, the opinion letters must certify that the financial plan is reasonable. Only one opinion letter from a financial expert, not otherwise employed by the applicant, is required if the letter renders a firm commitment to provide all the necessary financing.

   Letters of opinion are usually issued by investment or commercial bankers but there could be additional sources. Applicants are encouraged to verify the adequacy of the credentials of their chosen financial expert with TCEQ's financial assurance unit prior to a formal engagement. Financial experts should describe their qualifications and disclose their independence from the applicant and/or any entity or person affiliated with the applicant.

3. Operating and cash flow statement

   This portion of the requirement calls for a written detail of the annual operating costs of the facility and a projected cash flow statement including the period of construction and first two years of operation. The cash flow statement must demonstrate the financial resources to meet operating costs, debt service, and provide financial assurance for closure, post-closure care, and liability coverage requirements. A list of the assumptions made to forecast cash flow must also be provided.

4. Explanation statement

   This portion of the requirement calls for a statement addressing how the closure, post-closure, corrective action, and liability coverage financial assurance requirements of Chapter 37, Subchapter P will be met (ie. which financial assurance mechanism is or will be used).

5. Construction capital cost estimates

   This portion of the requirement calls for estimates of capital costs for expansion and/or initial construction if the application encompasses facility expansion, capacity expansion, or new construction.

D. Entities with a resolution from a governing body approving or agreeing to approve the issuance of bonds to satisfy financial assurance requirements (e.g. a city or county)

1. Explanation statement

   This portion of the requirement calls for a statement signed by an authorized signatory [as described in 30 TAC30 305.44(a)] explaining in detail how the applicant demonstrates sufficient financial resources to construct, safely operate, properly close, perform post-closure, perform corrective action and provide adequate liability coverage for the facility. This statement must also address how the closure, post-closure, corrective action, and liability coverage

financial assurance requirements of Chapter 37, Subchapter P will be met (ie. which financial assurance mechanism is or will be used).

2. Certified copy of the resolution from the governing body.

3. Certification by the governing body of passage of the resolution.

II. Permit Renewals

Complete the **Financial Disclosure Letter** letter with applicable information inserted into the parentheses. *Note that additional information must be provided if requested by TCEQ.*

TABLE OF APPENDICES

APPENDIX	TITLE
VIII.A	Financial Assurance Information Requirements for all Applicants (30 TAC Chapter 37, Subchapter P, 305.50(a)(4)(A-E), 335.152(a)(6) and 335.179)
VIII.B	Applicant Financial Disclosure Statements for a new permit, permit amendment, or permit modification, or permit renewal

Appendix VIII.A:

FINANCIAL ASSURANCE INFORMATION REQUIREMENTS FOR ALL APPLICANTS

AON

May 1, 2025

Stephanie Fisher
HUNTSMAN PETROCHEMICAL LLC
10003 Woodloch Forest Drive
The Woodlands, TX 77380

RE: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Bond #: K42065262
Project: EPA ID TXD008076853, Facility: Huntsman Petrochemical LLC, Conroe Chemical Plant, 5451 Jefferson Chemical Road, Conroe, TX 77301.
Bond Amount: $335,343.00

Dear Stephani:

Enclosed please find the above captioned bond(s) executed per your request.

The bond(s) must be signed by an authorized representative of your company, and sealed with the corporate seal if applicable. Bond executed in 1 counterparts.

It is your responsibility to carefully review the bond(s) prior to execution to verify they have been presented on the correct form with the appropriate names(s), bond amounts and dates, and to ensure the bond(s) conform with your needs and instructions to us and provide the appropriate terms to all parties. Any discrepancies, deficiencies or modifications must immediately be brought to our attention, in writing. Failing such advice to us, you understand we will have no liability for any deficiencies or discrepancies in or required modifications to the bond(s).

By affixing your signature, executing and providing this bond(s) to the obligee you are verifying and, we will justifiably assume, the bond(s) has been issued correctly with the best interests and requirements of all parties being properly considered.

Sincerely,

Debra A. Deming
Record #: 3002553

Figure: 30 TAC Â§37.311

PAYMENT BOND

Date bond executed: 05-01-2025.

Effective Date: 04-28-2025.

Principal: (legal name and business address of owner and operator) Huntsman Petrochemical LLC.
Conroe Chemical Plant, 5451 Jeffeson Chemical Road, Conroe, TX 77301
Type of Organization: (insert "individual," "joint venture," "partnership," or "corporation,") Limited Liability Company.

State of Incorporation: Delaware.

Surety(ies): (name(s) and business address(es)) Federal Insurance Company.
202B Halls Mill Road, Whitehouse Station, NJ 08889
Permit number, name, physical and mailing addresses, and closure, post closure, or corrective action amount(s) for each facility guaranteed by this bond (indicate closure, post closure, or corrective action amounts separately for each facility): EPA ID TXD008076853 - Closure

Total penal sum of bond: $335,343.00.

Suretyâ€™s bond number: K42065262.

Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the Texas Commission on Environmental Quality, hereinafter called TCEQ, in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the appropriate program area, to comply with permit requirements in order to own or operate each facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, post closure, or corrective action as a condition of the permit or other applicable requirements, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of, or corrective action at, each facility identified above, fund into the standby trust fund the amount(s) identified above for the facility,

Or, if the Principal shall fund into the standby trust fund in such amount(s) within 15 days after a final order to begin final closure or perform corrective action is issued by the TCEQ executive director or a U.S. district court or other court of competent jurisdiction,

Or, if the Principal shall provide alternate financial assurance, as specified in 30 Texas Administrative Code, Chapter 37 (relating to Financial Assurance) and obtain the TCEQ executive directorâ€™s written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the TCEQ executive director from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by the TCEQ executive director that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the TCEQ executive director.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the TCEQ executive director provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the TCEQ executive director, as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the TCEQ executive director.

(The following paragraph is an optional rider that may be included but is not required.)

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure, post closure, or corrective action amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the TCEQ executive director.

In Witness Whereof, the Principal and Surety(ies) have executed this Payment Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in 30 Texas Administrative Code Â§37.311 as such regulations were constituted on the date this bond was executed.

Principal
Huntsman Petrochemical LLC

(Signature(s)) Claire Mei

(Name(s)) Claire Mei

(Title(s)) VP & Treasurer

(Corporate seal)

Corporate Surety(ies)

(Name and address) Federal Insurance Company, 202B Halls Mill Road, Whitehouse Station, NJ 08889

State of Incorporation: Indiana

Liability limit: $ 335,343.00

(Signature(s)) Debra A. Deming

(Name(s) and title(s)) Debra A. Deming, Attorney-in-Fact

(Corporate Seal)

(For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.)

Bond premium: $ 2,180.00

CHUBB®

Power of Attorney

Federal Insurance Company | Vigilant Insurance Company | Pacific Indemnity Company
Westchester Fire Insurance Company | ACE American Insurance Company

Know All by These Presents, that **FEDERAL INSURANCE COMPANY**, an Indiana corporation, **VIGILANT INSURANCE COMPANY**, a New York corporation, **PACIFIC INDEMNITY COMPANY**, a Delaware corporation, **WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** corporations of the Commonwealth of Pennsylvania, do each hereby constitute and appoint Valorie Spates and Beverly Woolford of Garden City, New York; Debra A. Deming, Sandra Diaz, Vilma Gonzalez, Peter Healy, Pablo Garcia Horcajo, Francesca Kazmierczak, Aklima Noorhassan, Anne Potter and Frances Rodriguez of New York, New York ----------

each as their true and lawful Attorney-in-Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY** and **ACE AMERICAN INSURANCE COMPANY** have each executed and attested these presents and affixed their corporate seals on this **15th** day of **July, 2024.**

Rupert HD Swindells, Assistant Secretary

Warren Eichhorn, Vice President

STATE OF NEW JERSEY
County of Hunterdon SS.

On this 15th day of **July, 2024** before me, a Notary Public of New Jersey, personally came Rupert HD Swindells and Warren Eichhorn, to me known to be Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY, the companies which executed the foregoing Power of Attorney, and the said Rupert HD Swindells and Warren Eichhorn, being by me duly sworn, severally and each for himself did depose and say that they are Assistant Secretary and Vice President, respectively, of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY and know the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of said Companies; and that their signatures as such officers were duly affixed and subscribed by like authority.

Notarial Seal

Albert Contursi
NOTARY PUBLIC OF NEW JERSEY
No 50202369
Commission Expires August 22,2027

Notary Public

CERTIFICATION

Resolutions adopted by the Boards of Directors of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY on August 30, 2016; WESTCHESTER FIRE INSURANCE COMPANY on December 11, 2006; and ACE AMERICAN INSURANCE COMPANY on March 20, 2009:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into in the ordinary course of business (each a "Written Commitment"):

(1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.

(2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such person's written appointment as such attorney-in-fact.

(3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.

(4) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing to any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.

(5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested."

I, Rupert HD Swindells, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, PACIFIC INDEMNITY COMPANY, WESTCHESTER FIRE INSURANCE COMPANY and ACE AMERICAN INSURANCE COMPANY (the "Companies") do hereby certify that

(i) the foregoing Resolutions adopted by the Board of Directors of the Companies are true, correct and in full force and effect,
(ii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Whitehouse Station, NJ, this 1st day of May, 2025

Rupert HD Swindells, Assistant Secretary

~~IN THE EVENT YOU WISH TO VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT:~~
~~Telephone~~ (908) 903- 3493 Fax (908) 903- 3656 e-mail [redacted]

FEDERAL INSURANCE COMPANY

STATEMENT OF ASSETS, LIABILITIES AND SURPLUS TO POLICYHOLDERS

Statutory Basis

December 31, 2024

(in thousands)

ASSETS		*LIABILITIES AND SURPLUS TO POLICYHOLDERS*	
Cash, Cash Equivalents, and ST Investments	$ (355,746)	Outstanding Losses and Loss Expenses	$10,612,093
United States Government, State and Municipal Bonds	3,847,216	Reinsurance Payable on Losses and Expenses	1,730,804
Other Bonds	9,063,626	Unearned Premiums	3,117,855
Stocks	361,584	Ceded Reinsurance Premiums Payable	417,703
Other Invested Assets	1,562,503	Other Liabilities	583,379
TOTAL INVESTMENTS	14,479,183	TOTAL LIABILITIES	16,461,834
Investments in Affiliates:		Capital Stock	20,980
Great Northern Ins. Co.	444,946	Paid-In Surplus	2,711,474
Vigilant Ins. Co.	392,348	Unassigned Funds	2,245,956
Chubb National Ins. Co.	204,099		
Chubb Indemnity Ins. Co.	185,760	SURPLUS TO POLICYHOLDERS	4,978,410
Chubb Ins. Co. of New Jersey	41,523		
Chubb Lloyds Ins. Co. of Texas	6,140		
Other Affiliates	71,980		
Premiums Receivable	2,574,791		
Other Assets	3,039,474		
TOTAL ADMITTED ASSETS	$ 21,440,244	TOTAL LIABILITIES AND SURPLUS	$21,440,244

Investments are valued in accordance with requirements of the National Association of Insurance Commissioners. At December 31, 2024, investments with a carrying value of $569,829,993 were deposited with government authorities as required by law.

STATE OF PENNSYLVANIA

COUNTY OF PHILADELPHIA

John Taylor, being duly sworn, says that he is Senior Vice President of Federal Insurance Company and that to the best of his knowledge and belief the foregoing is a true and correct statement of the said Company's financial condition as of the 31 st day of December, 2024.

Sworn before me this March 20, 2025

Senior Vice President

Notary Public

August 8, 2027
My commission expires

Commonwealth of Pennsylvania - Notary Seal
Diane Wright, Notary Public
Philadelphia County
My commission expires August 8, 2027
Commission number 1235745
Member, Pennsylvania Association of Notaries

Figure: 30 TAC §37.301(a)

TRUST AGREEMENT

TRUST AGREEMENT, the "Agreement," entered into as of April 28, 2025 by and between Huntsman Petrochemical LLC, a Delaware Limited Liability Company, the "Grantor," and U.S. Bank Trust Company, National Association, a National Banking Organization, the "Trustee."

Whereas, the Texas Commission on Environmental Quality, "TCEQ," an agency of the State of Texas, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a facility(ies) shall provide assurance that funds will be available when needed for closure, post closure, or corrective action of the facility.

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facility(ies) identified herein,

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee,

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of TCEQ. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by TCEQ.

Section 4. Payment from the Fund. The Trustee shall make payments from the Fund as the TCEQ executive director shall direct, in writing, to provide for the payment of the costs of closure, post closure, or corrective action of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the TCEQ executive director from the Fund for closure, post closure, or corrective action expenditures in such amounts as the TCEQ executive director shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the TCEQ executive director specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be

created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretion conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.
Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the TCEQ executive director a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in

writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the TCEQ executive director shall constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the TCEQ executive director, and the present Trustee by certified mail ten days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the TCEQ executive director to the Trustee shall be in writing, signed by the executive director or the executive director's designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or TCEQ hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or TCEQ, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the TCEQ executive director, by certified mail within ten days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is

received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the TCEQ executive director, or by the Trustee and the TCEQ executive director if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the TCEQ executive director, or by the Trustee and the TCEQ executive director if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the TCEQ executive director issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of Texas.

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 30 Texas Administrative Code §37.301(a) as such regulations were constituted on the date first above written.

Huntsman Corporation

By: _____
Claire Mei
Vice President and Treasurer

Attest: _____
Rachel Muir
Vice President,
Deputy General Counsel
and Assistant Secretary

~~Seal~~ Not Applicable

U.S. Bank Trust Company, National Association, Trustee

By: _____
Alejandro Hoyos
Vice President

Attest: _____

Title: Vice President

~~Seal~~ Not Applicable

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

This Trust Agreement was acknowledged before me on this 28th day of April, 2025, by Claire Mei.

TANJA M MURRAY
Notary Public, State of Texas
Comm. Expires 03-12-2029
Notary ID 7410759

Tanja M Murray
Notary Public – State of Texas

03/12/2029
My commission expires

THE STATE OF TEXAS §
§
COUNTY OF MONTGOMERY §

This Trust Agreement was acknowledged before me on this 28th day of April, 2025, by Rachel Muir.

TANJA M MURRAY
Notary Public, State of Texas
Comm. Expires 03-12-2029
Notary ID 7410759

Tanja M Murray
Notary Public – State of Texas

03/12/2029
My commission expires

Schedule A

This Agreement demonstrates financial assurance for the following cost estimate at the Huntsman Petrochemical LLC facility in the State of Texas.

EPA ID TXD008076853

Name of Owner/Operator: Huntsman Petrochemical LLC

Physical & Mailing Address: 5451 Jefferson Chemical Road, Conroe, TX 77301

Current Cost Estimate (Closure): $335,343

(Post-closure): $0

(Corrective Action): $0

Total Cost Estimate: $335,343

Schedule B

List of Properties Comprising Trust Fund

This is purely a standby trust which is presently unfunded.

EXHIBIT A

In accordance with Section 14, instructions to the Trustee, below is a list of designated persons:

Name: Claire Mei
Vice President and Treasurer
Phone No: 281-719-6000

Name: Rachel Muir
Vice President,
Deputy General Counsel
and Assistant Secretary
Phone No: 281-719-6000

TEXAS ENDORSEMENT FOR LIABILITY MANUSCRIPT

This Endorsement modifies insurance provided under the following:
ENVIRONMENT PROTECT PREMISES

This Policy is amended as follows:

1. This Endorsement certifies that the Policy to which the endorsement is attached provides liability insurance covering **bodily injury** and **property damage** in connection with the **insured's** obligation to demonstrate financial responsibility under 30 TAC 37.404 (relating to Liability Requirements for Sudden and Nonsudden Accidental Occurrences). The coverage applies at Huntsman Petrochemical, LLC – Conroe Chemical Plant, 5451 Jefferson Chemical Road, Conroe, TX 77301 – TCEQ Solid Waste Registration Number 30094 for sudden and nonsudden accidental occurrences. The limits of liability are $10,000,000 each occurrence and $10,000,000 annual aggregate, exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy, provided, however, that any provisions of the Policy inconsistent with subsections (a) through (e) of this paragraph are hereby amended to conform with subsections (a) through (e):

   a. Bankruptcy or insolvency of the **insured** shall not relieve the insurer of its obligations under the policy to which this endorsement is attached.

   b. The insurer is liable for the payment of amounts within any deductible applicable to the Policy, with the right of reimbursement by the **insured** for any such payment made by the insurer. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated as specified in 30 TAC §37.541 (relating to Financial Test for Liability).

   c. Whenever requested by the TCEQ executive director, the insurer agrees to furnish to the executive director a signed duplicate original of the policy and all endorsements.

   d. Cancellation of this Endorsement, whether by insurer, the **insured**, or a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the TCEQ executive director.

   e. Any other termination of the Endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the TCEQ executive director.

Attached to and forming part of policy TBD issued by Fireman's Fund Indemnity Corporation, herein called the insurer, of 28 Liberty Street, New York NY 10005 to Huntsman Corporation – 10001 Woodloch Forest Drive, The Woodlands, TX 77380 this 1st day of April, 2025. The effective date of said policy is 15th day of December, 2024.

I hereby certify that the wording of this Endorsement is identical to the wording specified in 30 TAC §37.641 as such regulation was constituted on the date first above written, and that the insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in Texas.

_____
[Signature of Authorized Representative of Insurer]

Steve Tagert
Environmental Practice Leader – North America
Authorized Representative of Fireman's Fund Indemnity Corporation
28 Liberty Street, 25th Floor, New York, NY 10005, USA

All other terms and conditions of the Policy remain unchanged.

Appendix VIII.B:

APPLICANT FINANCIAL DISCLOSURE STATEMENTS FOR A NEW PERMIT, PERMIT AMENDMENT, OR PERMIT MODIFICATION, OR PERMIT RENEWAL

HUNTSMAN

Enriching lives through innovation

December 12, 2025

Martin Torres
Manager, Industrial and Hazardous Waste Permits Section
Waste Permits Division
Texas Commission on Environmental Quality
Building F, MC 130
12100 Park 35 Circle
Austin, Texas 78753

RE: Financial Disclosure Letter for Permit Renewal
Huntsman Petrochemical LLC – Conroe Plant
Hazardous Waste Permit No. 50227, Industrial Solid Waste Registration No. 30094
EPA ID No. TXD008076853, RN100219740/CN603603093

Dear Mr. Torres:

This letter is furnished to you in response to financial disclosure requirements as applicable under Texas Health and Safety Code Section 361.085 and Title 30, Texas Administrative Code (30 TAC), Section 305.50 to provide assurance that Huntsman Petrochemical LLC (Huntsman) has sufficient financial resources.

In keeping with the above law and rule requirements, I hereby certify that Huntsman is adequately capitalized and has sufficient financial resources to operate, close, provide post closure care for, and perform corrective action for the above-referenced facility in a safe manner, and in compliance with the permit and all applicable rules.

Huntsman currently provides a surety bond financial assurance mechanism as set out in 30 TAC, Chapter 37, Subchapter C to meet Huntsman's financial assurance obligations.

I am authorized to make these statements on behalf of Huntsman. I understand that the Texas Commission on Environmental Quality (TCEQ) may request additional information as part of their review.

Sincerely,

José Ignacio Garcia De Albizu
Manufacturing Director Americas

5451 Jefferson Chemical Road • Conroe, Texas 77301
Tel.: 936-756-3381 Fax.: 936-760-6280 www.huntsman.com

IX. RELEASES FROM SOLID WASTE UNITS AND CORRECTIVE ACTION

IX. Releases from Solid Waste Units and Corrective Action

Provide all Part B responsive information in Appendix IX. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

The Texas Solid Waste Disposal Act, 30 TAC 335.167, 40 CFR 270.14(d) and Section 3004(u) of the Hazardous and Solid Waste Amendments of 1984 (HSWA) *require that each hazardous waste management permit application review shall address corrective action for all releases of hazardous waste and hazardous constituents* listed in 40 CFR 261, Appendix VIII, 40 CFR Part 264, Appendix IX, and/or other constituents of concern from any solid waste management unit (SWMU) and/ or Areas of Concern (AOCs) at a facility, regardless of the time at which waste was placed in such unit[2]. For the purposes of HSWA Corrective Action, a SWMU may include, but is not limited to, any landfill, surface impoundment, land treatment unit, waste pile, underground injection well, incinerator, boiler, industrial furnace, tank, container storage area, drip pad, containment building, miscellaneous unit; any units exempt from hazardous waste permitting requirements, such as wastewater treatment units, elementary neutralization units, totally enclosed treatment units, waste recycle/reuse units, and 90-day accumulation time units; or process units or areas which may have routine and/or systematic releases to the environment (e.g., process drainage ditches or product storage tanks). Current EPA interpretation of this requirement has resulted in a Corrective Action process that begins with a RCRA Facility Assessment (RFA) to determine if corrective action is necessary.

[2]For the purposes of HSWA Corrective Action, a SWMU may include, but is not limited to, any landfill, surface impoundment, land treatment unit, waste pile, underground injection well, incinerator, boiler, industrial furnace, tank, container storage area, drip pad, containment building, miscellaneous unit; any units exempt from hazardous waste permitting requirements, such as wastewater treatment units, elementary neutralization units, totally enclosed treatment units, waste recycle/reuse units, and 90-day accumulation time units; or process units or areas which may have routine and/or systematic releases to the environment (e.g., process drainage ditches or product storage tanks).

The first step in the RFA is the development of a Preliminary Review (PR) from all available documentation for a facility (including but not limited to all facility documents, Part A, and Part B of the permit application, TCEQ correspondence files and inspection reports, etc.). The PR compiles available information on every SWMU and/or AOC that has ever existed at the facility. A unit checklist is completed for each SWMU and/ or AOC. On a unit-by-unit basis, the PR may recommend no further action for:

- well-designed and well-managed units
- units that have not managed hazardous wastes or wastes containing hazardous constituents;
- units already under corrective action by enforcement order; or
- units scheduled to be addressed in a compliance plan.

In addition, the unit checklists are summarized in a *Facility Checklist*. If there is a known release or potential for a release of hazardous waste or hazardous constituents from a unit/area, the PR may recommend a *RCRA Facility Investigation* (RFI), or an *Affected Property Assessment* (APA), if 30 TAC Chapter 350, Texas Risk Reduction Program (TRRP) applies, to determine the extent of the release for future corrective action, or stabilization as an appropriate and immediate corrective action.

The second step is a *Visual Site Inspection* (VSI) of the entire facility. The RFA is the combination of the PR and VSI documentation and any sample results. The RFA process should be scheduled so as to be completed during the latter stages of the Technical Review process or no later than one month in advance of the preparation of an initial draft permit for the facility. The RFA includes recommendations for whether further investigation or corrective action is warranted.

The requirements for an RFI or any other corrective action will be included in the permit, in the associated compliance plan which is mandatory for facilities with known groundwater contamination, or pursuant to 40 CFR 270.14(d)(3), the applicant may be required to start the RFI or other corrective action before the permit is issued. The RFI shall comply with all the applicable items contained in the U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994, unless an alternate investigation approach is approved by the Executive Director. An RFI workplan may typically include a soil boring program, installation of monitoring wells, and sampling and analysis for 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX hazardous constituents for surface soils, subsurface strata, surface water, groundwater, and/or air.

The permittee shall perform the RFI or APA and report the results. Corrective Action under 30 TAC Chapter 350 consists of an APA, determination of protective concentration levels, selection of a remedy standard (if necessary), development and implementation of a response action (if necessary), and submittal of required report according to 30 TAC Chapter 350.

If the RFI report indicates releases of hazardous waste or hazardous constituents for SWMUs and/or AOCs that have been grandfathered under 30 TAC Chapter 335 Subchapters A and S, Corrective Action shall consists of, if necessary, Interim Corrective Measures, *Baseline Risk Assessment* (BLRA)/*Corrective Measures Study* (CMS) Report, and *Corrective Measures Implementation* (CMI).

For grandfathered SWMUs and/or AOCs, the permittee may continue to complete the Corrective Action requirements under 30 TAC Chapter 335, Subchapter A and S, provided the permittee complies with the notification and schedule requirements pursuant to 30 TAC 335.8 and 350.(2)(m).

This report shall evaluate the risk, identify and evaluate corrective measure alternatives, and recommend appropriate corrective measure(s) to protect human health and the environment. The BLRA/CMS Report shall address all of the applicable items in 30 TAC 350, 30 TAC 335 Subchapter S, and the U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994.

Upon approval of the BLRA/CMS Report by the TCEQ, the permittee shall submit a CMI Workplan to address all of the items for CMI Workplan contained in the U.S. EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994. For projects conducted under TRRP, the risk assessment process shall be addressed in the *Affected Property Assessment Report* (APAR), and the evaluation of corrective measures shall be

conducted as part of the remedy standard selection process provided in the *Response Action Plan* (RAP). If the CMI or RAP does not propose a permanent remedy, then a CMI Workplan or RAP shall be submitted as part of a new compliance plan application or as a modification/ amendment application to an existing compliance plan. The workplan or RAP shall contain detailed final engineering design, monitoring plans, and schedules necessary to implement the selected remedy. Implementation of the corrective measures shall be addressed through a new and/or a modified/amended compliance plan. Upon installation of a corrective action system based upon the approved CMI Workplan or RAP, the permittee shall submit a CMI Report or RAP which includes as-built drawings of the corrective action system. To report the progress of the corrective measures, the permittee shall submit periodic CMI Progress Reports or Response Action Effectiveness Reports to the TCEQ in accordance with the schedule specified in the compliance plan. Upon completion of the corrective action requirements, the permittee shall submit CMI Report or Response Action Completion Reports for review and approval.

Please note that the applicant/permittee may perform voluntary corrective action, stabilization, or "interim measures" at any time prior to or during the RFA/RFI/CMS/CMI or the APAR/RAP process without prior TCEQ approval. The TCEQ strongly supports these actions when undertaken to mitigate releases or reduce or minimize exposure and releases to human health and the environment.

A. Preliminary Review Checklists

For Applications for a New Hazardous Waste Permit:

- For all facility Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs), complete the accompanying forms entitled "Preliminary Review Facility Checklist" and "Preliminary Review Unit Checklist". Make additional copies as necessary.

For Applications for a Renewal/Amendment/Modification of an Existing Hazardous Waste Permit:

- Update the Preliminary Review Facility Checklist to include any newly identified SWMUs and/or AOCs that were not incorporated into the previous permit issuance (new, amendment, modification, or renewal), and to update the status of all previously identified SWMUs or AOCs which are incorporated into the existing permit under either Section IX - Corrective Action for Solid Waste Management Units, or Section XI - Compliance Plan. Status updates should include notes regarding whether the SWMU or AOC has been incorporated into a compliance plan, has received approval of no further action (NFA), has had changes in its corrective action status, or has had other determinations issued by the TCEQ. Include the date of the status change in the updated checklist;
- Complete the Preliminary Review Unit Checklists for any newly identified SWMUs or AOCs that were not incorporated into the previous permit issuance (new, amendment, modification, or renewal);
- Update the status on the Preliminary Review Unit Checklists for all previously identified SWMUs or AOCs that had not yet received TCEQ approval of NFA at the time of the previous permit issuance;
- Provide copies of the letters from the TCEQ approving NFA or other determinations that were issued since the previous permit issuance;
- For previously identified SWMUs and/or AOCs which are incorporated into the existing permit and are included in Section XI - Compliance Plan of this application, you may forego filling out the Preliminary Review Unit Checklists for these units. Briefly note on the Preliminary Review Facility Checklist that the SWMUs or AOCs are addressed in

Section XI. Provide the location where the SWMU's and addressed in Section XI. ; or

- If all previously identified SWMUs and/or AOCs reached NFA status at or before the last permit issuance you may forego filling out the Preliminary Review Unit Checklists, indicate Not Applicable, and provide a brief explanation of the facts.

Complete Preliminary Review Facility Checklist (located in attachments)

Instructions for Preliminary Review Unit Checklist

Preliminary Review Facility Checklist

Preliminary Review Unit Checklist

TABLE OF APPENDICES

APPENDIX	TITLE
IX.A	Preliminary Review Checklists

Appendix IX.A:
PRELIMINARY REVIEW CHECKLISTS

Preliminary Review Facility Checklist

Facility	Huntsman Petrochemical Conroe Plant	City	Conroe
ISW Reg. No.:	30094	Date	December 12, 2025
Permit No.	50227	Reviewer:	
EPA ID No.	TXD008076853		

A. Waste Management Units:

RCRA Regulated Units:

NOR. No.	Description	Status
001	R-F-2 Incinerator	Closed
003	John Zink thermal oxidizer RF-6	Closed
005	Container storage	Active
010	T-F-9 Tank	Active
019	Container storage	Active
020	T-C-17 Tank	Inactive
023	R-F-70 Incinerator	Active
028	F-E-21 Tank	Inactive

Solid Waste Management Units:

NOR. No.	Description	Status
002	Landfill	Closed
004	T-F-2 and T-F-4 Tanks	Inactive
005	Surface impoundment	Closed
007	T-F-1 Tank	Inactive

NOR. No.	Description	Status
008	T-F-5 Tank	Active
009	Filter cake container storage	Inactive
011	TE-40 Tank	Active
012	FF-5 Tank	Inactive
013	RG-46 Tank	Active
014	Wastewater treatment system.	Active
015	Main process wastewater lift station	Active
016	Surface sewer lift station (G2)	Active
017	AAU railcar unloading lift station	Active
018	South process wastewater lift station (G2)	Active
021	T-E-41 Tank	Inactive
022	F-F-8 Tank	Active
024	Wastewater treatment	Inactive
025	T-F-2 Tank	Active
026	T-C-43 Tank	Active
027	Wastewater treatment static mixer and pumping system	Inactive
AOC-8	Buried drum trench	Inactive
AOC-9	T-E-55 Tank bottom pit	Inactive

B. Reviewed Documents

RCRA:

Part A ☒

Part B ☒

Permit ☒

CERCLA:

Inspection Reports:	
Enforcement Actions	
Exposure Information	
Other Information:	Notice of Registration, dated May 28, 2025. Post-Response Action Care Reports (PRACRs) for AOC-9.

C. Summary:

Preliminary Review Unit Checklists were submitted for NOR Nos. 001 through 027 in the previous renewal application. All units required no further investigation. There are no changes for these units. Therefore, checklists are not included for these units.

AOC-8 was determined to require no further action in the previous permit renewal application. No checklist is included for this unit.

AOC-9 is currently undergoing post-response action care activities. A checklist is provided with updated information. The post-response action care continues.

D. Recommended Action:

Continue post-response action care for AOC-9.

Preliminary Review Unit Checklist

Facility	Huntsman Petrochemical Conroe Plant	City	Conroe
ISW Reg. No.:	30094	Date	December 12, 2025
Permit No.	50227	Reviewer:	
EPA ID No.	TXD008076853		

Waste Management Unit(s):

A. NOR No.:	AOC-9
B. Description:	T-E-55 Tank bottom pit
C. Dates of Operation:	1954-1960
Wastes Managed:	Methanol bottoms residue
Evidence of Release:	Affected soil
Pollutant Dispersal Pathways:	Groundwater
Summary:	AOC-9 is currently undergoing post-response action care activities. A checklist is provided with updated information. The post-response action care continues. The most recent Post-Response Action Care Report (PRACR) was submitted on August 30, 2025, and was approved on December 4, 2025.
Recommended Action:	Continue post-response action care for AOC-9.

X. AIR EMISSION STANDARDS

X. Air Emission Standards

Provide all Part B responsive information in Appendix X. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

Section X.D. applies to Permittees with "one- stop" permits applying for an amendment, modification, or renewal of the Air Permits Division portions of their combined "one-stop" permit.

A. Process Vents

Does the facility have process vents and equipment subject to the requirements of 40 CFR Part 264, Subpart AA?

If Yes: please provide a report that includes all of the information required by 40 CFR §270.24. Indicate on a facility plot plan the approximate location of process vents.

1. For incorporation into the permit, complete Table X.A - Process Vents for all vents on waste management units that manage hazardous waste with an annual average total organics concentration of 10 ppmw or greater ("process vents"). Specifically include:

   a. process vents on distillation, fractionation, thin-film evaporation, solvent extraction, air or steam stripping operations, and vents on condensers serving these operations; and

   b. process vents on tanks (e.g., distillate receivers, bottom receivers, surge control tanks, separator tanks, and hot wells) associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping processes if emissions from these process operations are vented through the tanks.
   Emissions caused by natural means such as daily temperature changes or by tank loading and unloading are not subject to control.

2. For process vents, include the following certification as part of the air emissions report:

   I,_____*[owner or operator]*___, certify that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

   I further certify that the control device is designed to operate at an efficiency of 95 weight percent or greater.

   OR

   I further certify that the total organic emission limits of 40 CFR §264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

   [Signature] _____ *[Date]* _____.

B. Equipment Leaks

Does the facility have equipment subject to the requirements of 40 CFR Part 264, Subpart BB?

If No: please provide the regulatory exclusion/exemption(s):

If Yes: please provide a report that includes all of the information required by 40 CFR §270.25.

1. For incorporation into the permit, complete Table X.B. - Equipment Leaks for all valves, pumps, compressors, pressure relief devices, sampling connection systems, and open-ended valves or lines that contain or contacts hazardous waste streams with organic concentrations of 10% by weight or greater. Equipment in vacuum service is not subject to control if identified in the facility operating record.

2. For equipment, include the following statement as part of the air emissions report:

   I, *[owner or operator]*, certify that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

   I further certify that the control device is designed to operate at an efficiency of 95 weight percent or greater.

   [Signature] _____ *[Date]* _____.

C. Tanks, Surface Impoundments, and Containers

Does the facility have tanks subject to the requirements of 40 CFR Part 264, Subpart CC?

☐ Yes ☐ No ☐ Not Applicable (no permitted tanks)

If No: provide the regulatory exception/exemption(s) for each tank subject to regulation under 40 CFR Part 264, Subpart J:

Does the facility have surface impoundments subject to the requirements of 40 CFR Part 264, Subpart CC?

☐ Yes ☐ No ☐ Not Applicable (no permitted surface impoundments)

If No: provide the regulatory exception/exemption(s) for each permitted surface impoundment subject to regulation under 40 CFR Part 264, Subpart K:

Does the facility have containers subject to the requirements of 40 CFR Part 264, Subpart CC?

☐ Yes ☐ No ☐ Not Applicable (no permitted container storage areas)

If No: provide the regulatory exception/exemption(s) applicable to the authorized containers subject to regulation under 40 CFR Part 264, Subpart I:

If the facility contains tanks, surface impoundments, and containers subject to the requirements of 40 CFR Part 264 Subpart CC, please provide a report that includes all of the information required by 40 CFR §270.27.

1. For incorporation into the permit, complete Table X.C.

2. As applicable, include the following floating roof cover certification as part of the air emissions report for tanks:

   I, *[owner or operator]*, certify that the floating roof cover meets the applicable design specifications as listed in 40 CFR §264.1084(e)(1) or 40 CFR §264.1084(f)(1).

   [Signature] _____ *[Date]* _____.

3. As applicable, include the following floating membrane cover certification as part of the air emissions report for surface impoundments:

   I, *[owner or operator]*, certify that the floating membrane cover meets the applicable design specifications listed in 40 CFR §264.1085(c)(1).

   [Signature] _____ *[Date]* _____.

4. As applicable, include the following container certification as part of the air emissions report for containers:

   I, *[owner or operator]*, certify that the requirements of 40 CFR Part §264, Subpart CC, are met for all containers subject to control.

   [Signature] _____ *[Date]* _____.

5. As applicable, include the following control device certification as part of the air emissions report:

   I, *[owner or operator]*, certify that the control device is designed to operate at the performance level documented by a design analysis as specified in 40 CFR 264.1089 (e)(1)(ii) or by performance tests as specified in 40 CFR §264.1089(e)(1)(iii) when the tank, surface impoundment, or container is or would be operating at capacity or the highest level reasonably expected to occur.

   [Signature] _____ *[Date]* _____.

D. "One-Stop" Permits:

Does the facility have a "one-stop" permit?

☐ Yes ■ No

If yes: does this permit application propose to delete the "one-stop" portion of the permit?

☐ Yes ☐ No

Does the facility want the application processed in accordance with 30 TAC Chapter 33

- Consolidated Permit Applications?

☐ Yes ■ No

If yes: please provide a copy of the notification of intent required by 30 TAC 33.43.

Permittees having "one-stop" permits may elect to combine the air and waste management amendment, modification, or renewal of permitted waste management units. The combined amendment, modification, or renewal application will follow the application processing procedures for an industrial solid waste permit. "One-Stop" permit applications shall include the following air quality information, as applicable.

1. Area map (to scale) showing the location of the plant and land use in the vicinity of the facility including buildings, schools, residences, etc. within 3000 feet.
2. Plot plan (to scale) with latitude and longitude showing the plant layout, property boundary and location of all emission points of air contaminants. Emission points are to be numbered.
3. Specific chemical name of each air contaminant and emission rate in maximum pounds per hour, maximum tons per year and calculations used to determine emission rates. Fugitive emissions are to be included. Complete Table 1(a) entitled "Emission Sources."
4. Process description, operating schedule, and flow chart in sufficient detail that will explain the process and operation and a material balance for processes where applicable. The description should include a discussion of disposal methods for any generated residues and associated air emissions.
5. Design specifications about each emission control device using the appropriate OAQ table.
6. Volatile organic compound (VOC) concentrations in water or sludges or soil and volumes or weights of water, sludges or soils to be processed.
7. Exhaust stack or emission point parameters for each emission point including height, diameter, temperature, velocity and flow rate, except ground level fugitive emissions.
8. Best available control technology (BACT) documentation for all new and modified facilities.
9. Documentation of compliance with any applicable Federal New Source Performance Standard (NSPS) and Federal National Emission Standard for Hazardous Air Pollutants (NESHAPS).
10. Documentation as to whether a permit is required under new source review requirements of part C or D or Title I of the Federal Clean Air Act, 42 U.S.C. 7401 et seq., for a major source or major modification.
11. Information that demonstrates reliability of emission control systems including process instrumentation, equipment redundancy and operating procedures.
12. Results of atmospheric dispersion modeling certified to have been conducted in accordance with applicable TCEQ Office of Air Quality (OAQ) procedures. Model results must show maximum off-property 30-minute and annual ground level concentrations of each air contaminant. Dispersion modeling results must indicate compliance with all OAQ Rules and Regulations. Dimensions of buildings/structures that may influence dispersion modeling are to be

furnished. Please consult with OAQ before beginning any modeling study.

13. Storage tank data including capacity in gallons, diameter, height, paint color, composition, density, vapor pressure and molecular weight of liquid stored, maximum hourly and annual throughput and number of turnovers per year. Complete Table 7 entitled "Storage Tank Summary" for each tank.

14. A statement addressing the applicability of each OAQ regulation.

15. All methods of calculating emissions must be properly referenced with justification for selecting and assuming the values used in any equation.

TABLE OF APPENDICES

APPENDIX	TITLE
X	Air Emissions Report
X.A	Process Vents (Not Applicable)
X.B	Equipment Leaks (Table X.B)
X.C	Tanks, Surface Impoundments, and Containers (Table X.C)
X.D	"One-Stop" Permits (Not Applicable)

Appendix X:
AIR EMISSIONS REPORT

HUNTSMAN

Enriching lives through innovation

HUNTSMAN PETROCHEMICAL LLC

CONROE, TEXAS

INDUSTRIAL AND HAZARDOUS WASTE STORAGE/PROCESSING/DISPOSAL FACILITY PERMIT NO. 50227 SOLID WASTE REGISTRATION NO. 30094 EPA ID NO. TXD008076853

AIR EMISSION REPORT

DECEMBER 2025

1.0 INTRODUCTION

Huntsman Petrochemical LLC (Huntsman) operates one permitted hazardous waste storage tank and one permitted hazardous waste incinerator at its facility in Conroe, Texas. These units are designated as the T-F-9 Tank and the R-F-70 Incinerator, respectively. These units are subject to the Resource Conservation and Recovery Act (RCRA) general permitting and operating requirements of Title 40 Code of Federal Regulations (CFR) Parts 264 and 270 and Title 30 Texas Administrative Code (TAC) Chapter 335 Subchapter F. The incinerator is also subject to the Hazardous Waste Combustor National Emission Standards for Hazardous Air Pollutants (HWC NESHAP) codified in 40 CFR Part 63 Subpart EEE.

This report addresses the air emission standards provided in 40 CFR Part 264 Subparts AA, BB, and CC.

2.0 SUBPART AA

The RCRA air emission standards of 40 CFR Part 264 Subpart AA for process vents do not apply to the permitted hazardous waste management units because these units do not meet the applicability requirements specified in 40 CFR § 264.1030.

3.0 SUBPART BB

The RCRA air emission standards of 40 CFR Part 264 Subpart BB apply to equipment that contains or comes in contact with hazardous wastes with organic concentrations of 10 percent by weight (*i.e.*, in light liquid service) that are managed in one of the following:

- A unit that is subject to the permitting requirements of 40 CFR Part 270; or
- A unit that is not exempt from permitting due to the short-term accumulation exemption under 40 CFR § 262.17 and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 40 CFR Part 270; or
- A unit that is exempt from permitting under 40 CFR § 262.17 and that is not a recycling unit under the provisions of 40 CFR § 261.6.

A hazardous waste mixture is stored in the T-F-9 Tank prior to being fed to the R-F-70 Incinerator. The air emission standards for equipment leaks provided in 40 CFR Part 264 Subpart BB are applicable to the hazardous waste transfer systems used to transfer liquid waste from the process to the storage tank and from the storage tank to the incinerator.

Specific standards are provided for each of the following types of equipment:

- Pumps in light liquid service;
- Compressors;
- Pressure relief devices in gas/vapor service;

- Sampling connection systems;
- Open-ended valves or lines;
- Valves in gas/vapor service or in light liquid service; and
- Pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and flanges and other connectors.

These standards are applicable to the hazardous waste transfer systems used at the Conroe Plant to transfer liquid wastes to and from T-F-9 Tank and to the R-F-70 Incinerator. Of the equipment subject the Subpart BB, only the following equipment is associated with the incinerator and tank:

- Pumps;
- Valves;
- Sampling connection systems; and
- Pressure relief devices, flanges, and other connectors.

The facility maintains the following operating records for at least three years:

- A log of applicable equipment pursuant to 40 CFR § 264.1064(g);
- Information pertaining to valves pursuant to 40 CFR §§ 264.1064(h) and (i);
- Design criteria information pursuant to 40 CFR § 264.1064(j); and
- Analytical records pursuant to 40 CFR § 264.1064(k).

4.0 SUBPART CC

The RCRA air emission standards of 40 CFR Part 264 Subpart CC apply to tanks and containers that contain or come in contact with hazardous wastes with organic concentrations greater than or equal to 500 parts per million by weight (ppmw). The air emission standards for tanks provided in 40 CFR Part 264 Subpart CC are applicable to the T-F-9 Tank.

40 CFR § 264.1084(b)(1) requires that tanks meeting the following conditions to utilize Tank Level 1 controls:

- For a tank design capacity equal to or greater than 151 cubic meters, a maximum organic vapor pressure for the tank of 5.2 kilopascals (kPa);
- For a tank design capacity equal to or greater than 75 cubic meters but less than 151 cubic meters, a maximum organic vapor pressure for the tank of 27.6 kPa; or
- For a tank design capacity less than 75 cubic meters, a maximum organic vapor pressure for the tank of 76.6 kPa.

If the tank does not meet one of these conditions, Tank Level 2 controls are required.

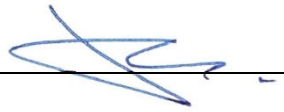
The T-F-9 Tank has a design capacity of 113.56 cubic meters. The hazardous waste mixture stored in the tank has a maximum organic vapor pressure of 130 kPa. Therefore, Tank Level 2 controls are required for the T-F-9 Tank.

The T-F-9 Tank has a fixed-roof and is vented through a closed-vent system directly to an emission control device in accordance with 40 CFR § 264.1084(g). The control device is a packed bed scrubber. Vapors from the tank flow up through the packing with a continuous down flow of water. Testing has demonstrated that this control device reduces the total organic content of the inlet vapor stream vented to the device by at least 95 percent by weight. Inspections and maintenance are conducted in accordance with Subpart CC provisions to ensure that this control device operates as designed. The specific inspections for the tank are listed in Table III.D in Section III of the Part B Permit Application.

5.0 CERTIFICATION STATEMENT

The following certification statement is stipulated by the Part B Permit Application instructions and pertains to the information used to classify equipment under the Subpart AA, BB, and CC standards:

I, **José Ignacio Garcia De Albizu**, certify that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. I further certify that the control device is designed to operate at an efficiency of 95 weight percent or greater.



Signature

12/11/25

Date

Appendix X.B:
EQUIPMENT LEAK (TABLE X.B)

Table X.B. - Equipment Leaks

List all process vents covered by this application.

Equipment I.D. No.	Equipment Type	Waste Management Unit N.O.R. No.	Waste Management Unit Name	% by Weight Total Organics in Haz. Waste Stream	Waste State (gas, vapor, liquid)	Method of Compliance
*	Pumps	010	T-F-9 Tank	>10	Liquid	Weekly visual inspection, monthly monitoring, LDAR program
*	Valves in light liquid or vapor service	010	T-F-9 Tank	>10	Liquid	Weekly visual inspection, monthly monitoring, LDAR program
*	Sampling connections	010	T-F-9 Tank	>10	Liquid	Closed purge loop or closed vent system
*	Pressure relief valves in light liquid service, flanges, and other connections	010	T-F-9 Tank	>10	Liquid	Monitoring if leak detected

* Various equipment tag numbers maintained by Huntsman and available for inspection

Appendix X.C:
TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (TABLE X.C)

Table X.C. - Tanks, Surface Impoundments, and Containers Subject to Air Emission Controls

List all units covered by this application.

Permit Unit No.	Tanks	Design Capacity (Cubic Meters)	Hazardous Waste Maximum Organic Vapor Pressure [1] (Kilopascals)	Tank Used in Waste Stabilization Process (Y, N)	Tank Level Control (1, 2) [2]	Identify Tank Level 2 Control Tank Type and Control Device Type [3]
1	T-F-9 Tank	113.56	130	N	2	Fixed-roof tank vented through a closed-vent system to a packed bed scrubber (>95% removal of total organic content)

Permit Unit No.	Surface Impoundments	Control Type (Floating Membrane/ Cover Vented through Closed Vent System to Control Device) [3]

Permit Unit No.	Surface Impoundments	Control Type (Floating Membrane/ Cover Vented through Closed Vent System to Control Device) [3]

Permit Unit No.	Container Storage Areas	Container Design Capacity (Cubic Meters)	In Light Material Service? (Y/N)	Container Level Standard [2] (1,2,3)	Container Level Standard 3 Control Types (Closed-Vent System/ Enclosure, Control Device Type) [3]

1. Applicable to Tank Level 1 controls determined using procedures in 40 CFR 264.1083(c). If the tank is heated, see 40 CFR 264.1084(b)(ii).
2. See 40 CFR 264.1084(c) and (d) for tanks and 40 CFR 264.1086(b) for containers.
3. See 40 CFR 264.1084(d)(1)-(5) for tanks, 40 CFR 264.1087(c)(1) for control devices, 40 CFR 264.1085(b) for surface impoundments, and 40 CFR 264.1086(c), (d), and (e) for containers.

XI. COMPLIANCE PLAN (NOT APPLICABLE)

TABLE OF APPENDICES

APPENDIX	TITLE
XI	Compliance Plan (Not Applicable)

XII. HAZARDOUS WASTE PERMIT APPLICATION FEE

XII. Hazardous Waste Permit Application Fee

Provide all Part B responsive information in Appendix XII. When preparing the physical format organize your submittal using the Format of Hazardous Waste permit Application and Instructions.

In accordance with 30 TAC 305.53, complete Tables XII.A. - Hazardous Waste Units (For Application Fee Calculations) and XII.B. - Hazardous Waste Permit Application Fee Worksheet. Use the following information in calculating your fee. The application fee will be non-refundable once an initial review of the application has been completed. The applicant's fees are subject to evaluation by the technical staff of the Texas Commission on Environmental Quality (TCEQ). However, the TCEQ reserves the right to assess further fees as may be necessary.

A. The minimum permit application fee for a permit or a permit renewal for each hazardous waste facility to be used for Storage, Processing, Disposal, or Closure/Post-Closure Care (disposal has already occurred) of hazardous waste shall be $2,000, plus notice fee, and the maximum shall be $50,000, calculated according to these instructions:

1. Process Analysis - $1,000.00.

2. Management/Facility Analysis - $500.00.

3. A facility unit(s) analysis of $500 per unit is charged for the following:

   a. each cell of a landfill (note that multiple cells that are identical in type and use are subject to a single $500 fee);

   b. tanks and container storage areas (note that multiple tanks and container storage areas that are identical in type and use are subject to a single $500 fee)

   c. identical in type and use means the following:
      (1) made of the same material and same design;
      (2) the same size/capacity within + 10%;
      (3) store the same waste (as identified by USEPA hazardous waste number - 40 CFR 261 Subparts C & D); and
      (4) have the same management characteristics (e.g., storage only).

   d. Each incinerator, boiler/industrial furnace unit, surface impoundment, waste pile, land treatment unit, drip pad, miscellaneous unit, or containment building.

4. Site Evaluation - $100 per acre of surface used for hazardous waste management up to 300 acres. No additional fee thereafter. This shall be calculated as any acreage which will be permitted to manage hazardous waste. This shall include, for example, the entire area within the secondary containment of a tank farm, the area within a fence that surrounds individual units (other than the facility fence), or the area defined by the toe of the dike surrounding a landfill or impoundment, etc.

5. An applicant shall also include with each initial application a fee of $50 to be applied toward the cost of providing the required notice. An additional notice

fee of $15 is required with each application for renewal.

B. The application fee for a major amendment or a Class 2 or 3 modification to a hazardous waste permit for operation, closure, or post-closure care is subject to the fees listed below:

1. A management/facility analysis fee of $500.

2. The notice fee is $50.

3. If a unit is added or a unit area is expanded for any purpose, $100 per additional acre is assessed, until the total additional acreage reaches 300 acres.

4. If one or more of the following reports are added or are significantly revised, the process analysis fee of $1000 is assessed:

   a. waste analysis plan;

   b. site-specific or regional geology report;

   c. site-specific or regional geohydrology report;

   d. groundwater and/or unsaturated zone monitoring;

   e. closure and/or post-closure care plan; or

   f. RCRA Facility Assessments (RFAs), or corrective action reports;

   g. Alternate Concentration Limit (ACL) demonstration or Development of Protective Concentration Limits (PCLs);

   h. Regulated Unit Facility Assessment, Corrective Action (CA) work plans or reports for Regulated Units; and/or

   i. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA), Remedy Selection, Corrective Measure Implementation (CMI)/Remedial Action Plan for solid waste management units, and/or areas of concern;

   j. Facility Operations Area (FOA).

5. A unit analysis fee of $500 per unit is assessed if any of the following occur:

   a. if a unit is added (even if identical to units already in place, using the criteria discussed in A.3 above);

   b. if there are design changes in an existing unit; or

   c. if a unit status changes from closure to post-closure care;

   d. Changes in the number, location, depth, or design of wells approved in compliance plan or a permit (unless it is a replacement well);

   e. Changes in point of compliance and compliance monitoring program;

   f. Changes in Groundwater Protection Standards, indicator parameters, Alternate Concentration Limits or Protective Concentration Limits; and/or

   g. Changes in corrective action program.

C. The application fee for a minor amendment, a Class 1, or a Class 1^{1} modification of a

hazardous waste permit is $100 plus the notice fee of $50.

TABLE OF APPENDICES

Appendix XII.A:
HAZARDOUS WASTE UNITS (TABLE XII.A)

Table XII.A. - Hazardous Waste Units (For Application Fee Calculations)

Verbal Description of Unit	Rated Capacity	Surface Acreage[1]	# of Unit Types[2]	Identical Unit Justification[3]
T-F-9 Tank	30,000 gallons	0.04	1	Not applicable
R-F-70 Incinerator	38.9 MMBtu/hr	0.07	1	Not applicable
		Total[4] 0.11	Total[4] 2	

1. Number of calculated acres.
2. Enter number of units except for units identical in type and use which only count toward a single $500.00 fee.
3. Explain justification for any units claimed as identical in type and use.
4. Enter these totals on the worksheet.

Appendix XII.B:
HAZARDOUS WASTE PERMIT APPLICATION FEE (TABLE XII.B)

Table XII.B. - Hazardous Waste Permit Application Fee Worksheet

Name of Facility: Huntsman Petrochemical LLC

Solid Waste Registration Number: 30094

1. Process Analysis - $1,000..... $ 1,000
2. Facility Management Analysis - $500..... $ 500
3. Unit Analysis - 2 units @ $500 per unit..... $ 1,000
4. Site Evaluation - < 1 acres @ $100 per acre..... $ 100

   (Maximum of 300 acres)

5. Minor amendment, Class 1, or Class 1[1] modification - $100..... $ 0
6. Cost of Providing Notice - $50 (+ $15 for a renewal)..... $ 65

Pay This Amount **Total** $ **2,665.00**

Pay Online through ePay portal www3.tceq.texas.gov/epay/

Enter ePay Trace Number: 582EA000699470

For Payment by check, make checks Payable To:

Texas Commission on Environmental Quality - Fund 549
(your canceled check will be your receipt)

Complete And Return With Payment To:

Texas Commission on Environmental Quality
Financial Administration Division - MC 214
P.O. BOX 13088
Austin, Texas 78711-3088

The applicant's fees are subject to evaluation by the technical staff of the Texas Commission on Environmental Quality (TCEQ). However, the TCEQ reserves the right to assess further fees as may be necessitated.

Please do not submit a photocopy of the check (or equivalent transaction submittal) with your application packet but provide only the following account information:

Check No.	Date of Check	Check Amount
Not applicable	Not applicable	Not applicable