



349 Northern Blvd. Suite 3
Albany, NY 12204
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www.envirospeceng.com

August 14, 2025

Central Permit Processing Unit
Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106-5127

Re: Global New Haven Terminals LLC
500 Waterfront Street, New Haven, CT
Permit No. 117-0257-TV

To Whom It May Concern,

On behalf of Global New Haven Terminals LLC (Global), Envirospec Engineering PLLC is submitting this application for a New Source Review (NSR) permit for the Global New Haven Terminals LLC facility located at 500 Waterfront Street, New Haven, CT 06517. The facility currently operates under Title V permit 117-0257-TV.

This application is to repermit Tank 123, which is an internal floating roof tank permitted as EU-28a in the Title V permit for the facility, for gasoline service. This tank is currently permitted for distillate service. The application also includes the addition of one gasoline loading arm, which used to be in ethanol service and would subject the facility to 40 CFR 60 Subpart XXa when it is changed to gasoline service. There is no corresponding increase in overall facility throughput associated with the additional gasoline loading arm. There is also a planned upgrade to an existing gasoline arm. No permit modification is required for that upgrade since the arm was already permitted for gasoline service.

The following is included in this permit application:

- NSR Application Forms
- Supplemental Application Forms for Additional Gasoline Loading Arm
- Supplemental Forms for Tank 123
- Potential to Emit (PTE) for Tank 123
- BACT Analyses
- Major Modification Determination Form
- Ambient Impact Analysis Form
- Applicant Compliance Information
- Annotated Permit
- Environmental Justice Plan and Final Report Approvals and Environmental Justice Plan
- Published Notice of Permit Application
- Response to Comments from Public Hearing
- Permit Application Fee (check enclosed)

Should you have any questions please feel free to contact me at 518-453-2203.

Sincerely,

Gianna Aiezza

Gianna Aiezza, PE
Principal Engineer
Envirospec Engineering PLLC

cc:

Tom Keefe – Global New Haven Terminals LLC
Steve Charron – Global New Haven Terminals LLC



CERTIFICATION BY RESPONSIBLE OFFICIAL

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under Section 53a-157b of the Connecticut General Statutes and any other applicable law.

Name: Thomas Keefe

Title: Vice President Environmental Health and Safety

Signature: 

Date of Responsible Official Signature: 8/14/25

DEEP-NSR-APP-200 FORM



Connecticut
Department of Energy &
Environmental Protection

Permit Application for Stationary Sources of Air Pollution - New Source Review

Please complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-200) to ensure the proper handling of your application. Print or type unless otherwise noted. You must submit the permit application fee(s), a copy of the public notice, and the [Certification of Notice Form](#) (DEEP-APP-005A) along with this form.

Note: If you are applying for a *minor modification* or a *revision* to an existing New Source Review permit, please use the appropriate [Minor Modification Application Form](#) (DEEP-NSR-APP-200MM) or [Revision Application Form](#) (DEEP-NSR-APP-200R).

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Applicant Name:	Global New Haven Terminals LLC	Town Where Site is Located:	New Haven, CT

Part I: Application and Source Type Summary

More than one permit may be applied for using one application form if the sources are located at the same premises. Complete and attach the appropriate supplemental application forms for each unit included in this application package. *Each* unit or process line requires a separate permit.

Unit No.	Source Type	Application Type	Existing Town-Permit or Registration Nos. (If applicable)	DEEP Use Only	
				Application No.	Permit No.
U28a	Volatile Liquid Storage	☒ New ☐ Non-Minor Mod	117-0257-TV		
GEU2	Gasoline Loading Arm	☒ New ☐ Non-Minor Mod	117-0257-TV		
		☐ New ☐ Non-Minor Mod			
		☐ New ☐ Non-Minor Mod			
		☐ New ☐ Non-Minor Mod			
		☐ New ☐ Non-Minor Mod			

☐ Check here if additional sheets are necessary to identify all sources that are included in this application package, and label and attach them to this sheet.

Brief Description of Project:	Global New Haven Terminals LLC is applying for a New Source Review (NSR) permit for Tank 123 at 500 Waterfront Street and to change an existing loading arm from ethanol to gasoline service

Part II: Fee & Public Notice Information

1. FEE INFORMATION		
A permit application fee of \$940.00 [#195] is to be submitted with this application form for each source listed in Part II. For municipalities, as defined in CGS section 22a-170, a 50% reduction applies. The application will not be processed until the application fee is received. The fee shall be paid by check or money order to the Department of Energy and Environmental Protection or by such other method as the commissioner may allow. The permit fee(s) will be calculated subject to the provisions of RCSA section 22a-174-26 and billed at a later date.	Number of Sources from Part I	2
	Application Fee per source	\$940
	Municipality	☒ No ☐ Yes, 50% disc.
	Total Enclosed	\$1880
2. PUBLIC NOTICE INFORMATION		
The public notice of application must be published prior to submitting an application, as required in CGS section 22a-6g. A copy of the public notice of application and the completed Certification of Notice Form (DEEP-APP-005A) must be included as Attachment AA to this application. Your application will not be processed if Attachment AA is not included.	Date of Publication	

Part III: Applicant Information

- *If an applicant is a corporation, limited liability company, limited partnership, limited liability partnership, or a statutory trust, it must be registered with the Secretary of State. If applicable, the applicant's name shall be stated **exactly** as it is registered with the Secretary of State. Please note, for those entities registered with the Secretary of State, the registered name will be the name used by DEEP. This information can be accessed at the Secretary of State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)*
- If an applicant is an individual, provide the legal name (include suffix) in the following format: First Name; Middle Initial; Last Name; Suffix (Jr, Sr., II, III, etc.).*
- If there are any changes or corrections to your company/facility or individual mailing or billing address or contact information, please complete and submit the [Request to Change Company/Individual Information](#) to the address indicated on the form. If there is a change in name of the entity holding a DEEP license or a change in ownership, contact the Office of Planning and Program Development (OPPD) at DEEP.OPPD@ct.gov or 860-424-3003. For any other changes you must contact the specific program from which you hold a current DEEP license.*

1. APPLICANT INFORMATION					
Applicant Name	Global New Haven Terminals LLC Check at least one: ☒ equipment owner ☐ equipment operator <i>The applicant must be either the owner or operator of the equipment.</i>				
Mailing Address	800 South Street, Suite 500				
City/Town	Waltham	State	MA	Zip Code	02453
Business Phone No.	781-398-4132	Extension No.			
Contact Person	Tom Keefe				
Title	VP EHS Operations				
Email	TKeefe@globalp.com By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject application. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.				

Part III: Applicant Information (continued)

Applicant Type	☒ business entity ☐ municipality ☐ individual	
	☐ federal agency ☐ state agency ☐ tribal	
	If a business entity:	Business Type ☐ corporation ☒ limited liability company ☐ limited partnership ☐ limited liability partnership ☐ statutory trust ☐ Other:
		Secretary of the State business ID No. 2697737 ☐ Check here if your business is NOT registered with the Secretary of State's office.
<i>This information can be accessed at the Secretary of State's database (CONCORD). (www.concord-sots.ct.gov/CONCORD/index.jsp)</i>		
Applicant's interest in property at which the proposed activity is to be located	☒ site owner ☐ option holder ☐ lessee ☐ easement holder ☐ Other:	
Are there co-applicants?	☐ Yes ☒ No If "Yes", attach additional sheet(s) with the required information as above.	
Did the Applicant attend a Pre-Application Meeting with DEEP air staff?	☐ No ☒ Yes, Pre-Application Meeting: Date of Meeting: 2/13/2025 Air Staff Name(s): Rintra McIntyre	
2. BILLING CONTACT (If different than the applicant)		
Name		
Mailing Address		
City/Town	State	Zip Code
Contact Person		
Business Phone No.	Extension No.	
Email		
3. PRIMARY CONTACT FOR DEPARTMENTAL CORRESPONDENCE AND INQUIRIES (if different than the applicant)		
Name		
Title		
Company/Individual Name		
Mailing Address		
City/Town	State	Zip Code
Business Phone No.	Extension No.	
Email		
By providing this e-mail address you are agreeing to receive official correspondence from DEEP, at this electronic address, concerning the subject application. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify DEEP if your e-mail address changes.		

Part III: Applicant Information (continued)

4. EQUIPMENT OWNER OR EQUIPMENT OPERATOR (Only complete if applicant is not both equipment owner and operator)					
Name	Global Companies LLC Check one: ☐ equipment owner ☒ equipment operator				
Title	VP EHS				
Company/Individual Name	Tom Keefe				
Mailing Address	800 South Street, Suite 500				
City/Town	Waltham	State	MA	Zip Code	02453
Business Phone No.	781-398-4132	Extension No.			
Email	TKeefe@globalp.com				
5. ENGINEER(s) OR CONSULTANT(s) EMPLOYED OR RETAINED TO ASSIST IN PREPARING THIS APPLICATION (If different than the applicant)					
Name	Gianna Aiezza				
Title	Principal Engineer				
Company/Individual Name	Envirospec Engineering, PLLC				
Mailing Address	349 Northern Blvd, Suite 3				
City/Town	Albany	State	NY	Zip Code	12204
Business Phone No.	518-453-2203	Extension No.			
Email	gaiezza@envirospeceng.com				
Service Provided	Environmental Consulting and Engineering Services				

☐ Check here if additional sheets are necessary. Label and attach them to this sheet.

Part IV: Site Information

1. SITE NAME AND LOCATION					
Name of Site		Global Companies - New Haven Terminal			
Street Address or Location Description		500 Waterfront Street			
City/Town	New Haven	State	CT	Zip Code	06517
2. SITE OWNERSHIP INFORMATION					
For site locations that <i>do not</i> currently have an air permit or registration associated with it:					
Please provide the date the owner or operator established a presence at this site.					
For site locations that <i>do</i> currently have an air permit or registration associated with it:					
Does this site have a new owner or operator?		☐ Yes ☒ No			
If yes, is this new owner or operator replacing the existing owner of the site or will it be co-located with the existing owner?		☐ Replacing ☐ Co-Located			
If yes, please provide the date the new owner or operator established a presence at this site.					
3. INDIAN LANDS					
Is or will the premises be located on federally recognized Indian lands?		☐ Yes ☒ No			
4. COASTAL MANAGEMENT ACT CONSISTENCY					
Is or will the activity which is the subject of this application be located within the coastal boundary as delineated on DEEP approved coastal boundary maps? Information on the coastal boundary is available at www.lisrc.uconn.edu. (Click on the upper tab or left hand column labeled "Maps", then "Coastal Connecticut") or the local town hall or on the "Coastal Boundary Map" available at DEEP Maps and Publications (860-424-3555).		☒ Yes ☐ No			
If yes, Is this an application for a new permit or a modification of an existing permit where the physical footprint of the subject activity is modified?		☐ Yes ☒ No If yes, <u>and</u> if the activity which is the subject of this application is located within the coastal boundary as delineated on DEEP approved coastal boundary maps, you must complete and submit a Coastal Consistency Review Form (DEEP-APP-004) with your application as Attachment O.			
If the activity is not located within the coastal boundary, is the activity which is the subject of this application located within the coastal area? (see town list in the instructions)		☐ Yes ☐ No			

Part IV: Site Information (continued)

5. NATURAL DIVERSITY DATA BASE (NDDB) - ENDANGERED AND THREATENED SPECIES	
According to the most current "State and Federal Listed Species and Natural Communities Map", is the activity which is the subject of this application located within an area identified as a habitat for endangered, threatened or special concern species?	☐ Yes ☒ No Date of Map: June 2024
Is this an application for a new permit or a modification of an existing permit where the physical footprint of the subject activity is modified? For more information visit the DEEP website at https://portal.ct.gov/DEEP/Endangered-Species/Endangered-Species-ReviewData-Requests or call the NDDB at 860-424-3011.	☐ Yes ☒ No If yes, <u>and</u> if the project site is located within an area identified as a habitat for endangered, threatened or special concern species, complete and submit a Request for NDDB State Listed Species Review Form (DEP-APP-007) to the address specified on the form. Please note NDDB review generally takes 4 to 6 weeks and may require additional documentation from the applicant. The CT NDDB response must be submitted with this completed application as Attachment P.
6. AQUIFER PROTECTION AREAS	
Is the site located within a town required to establish Aquifer Protection Areas, as defined in CGS sections 22a-354a through 354bb? To view the applicable list of towns and maps visit the DEEP website at https://portal.ct.gov/DEEP/Aquifer-Protection-and-Groundwater/Aquifer-Protection/Aquifer-Protection-Program	☐ Yes ☒ No
If yes, is the site within an area identified on a Level A or B map?	☐ Level A ☐ Level B If your site is on a Level A map, check the DEEP website, Business and Industry Information (https://portal.ct.gov/DEEP/Aquifer-Protection-and-Groundwater/Aquifer-Protection/Aquifer-Protection-Program) to determine if your activity is required to be registered under the Aquifer Protection Area Program. If your site is on a Level B map, no action is required at this time, however you may be required to register under the Aquifer Protection Area Program in the future when the area is delineated as Level A.
7. CONSERVATION OR PRESERVATION RESTRICTION	
Is the premises subject to a conservation or preservation restriction?	☐ Yes ☒ No If yes, proof of written notice of this application to the holder of such restriction or a letter from the holder of such restriction verifying that this application is in compliance with the terms of the restriction, must be submitted as Attachment Q.

Part IV: Site Information (continued)

8. ENVIRONMENTAL JUSTICE COMMUNITY	
Does the site include an applicable facility which is located within an Environmental Justice Community, as defined in the Environmental Justice Public Participation Guidelines (Guidelines)?	☒ Yes ☐ No If yes, and this application is for a new or expanded permit, prior to submitting this application prepare an <i>Environmental Justice Public Participation Plan</i> (DEEP-EJ-PLAN-001) in accordance with the Guidelines and submit such plan to: Environmental Justice Program Office of the Commissioner Department of Energy and Environmental Protection 79 Elm Street Hartford, CT 06106-5127 Once you have received written approval for your Environmental Justice Public Participation Plan from the DEEP, submit this completed application with a copy of the Plan approval as Attachment R.
9. AIR QUALITY STATUS	
Indicate the air quality status of the area in which the premises is or will be located. (See instructions for the air quality attainment status of Connecticut municipalities).	Ozone: ☒ Severe Non-Attainment ☐ Serious Non-Attainment
10. MAJOR STATIONARY SOURCE	
Is the premises a major stationary source?	☒ Yes ☐ No If yes, indicate the pollutant(s), if any, for which the premises exceeds the major stationary source threshold: ☐ PM ☐ PM₁₀ ☐ PM_{2.5} ☐ SO₂ ☐ NO_x ☐ CO ☒ VOC ☐ Pb ☐ CO₂ ☒ HAPs
Is the premises operating in accordance with the provisions of RCSA §22a-174-33a <i>Limit on Premises-Wide Actual Emissions Below 50% of Title V Source Thresholds</i> or RCSA §22a-174-33b <i>Limit on Premises-Wide Actual Emissions Below 80% of Title V Source Thresholds</i>?	☐ Yes, RCSA §22a-174-33a ☐ Yes, RCSA §22a-174-33b ☒ No
11. SIC CODES	Primary 5171 Secondary Other Other
12. NAICS CODE	424710

Part V: Attachments

Check the applicable box below for each attachment being submitted with this application form. When submitting any supporting documents, please label the documents as indicated in this Part (e.g., Attachment A, etc.) and be sure to include the applicant's name as indicated on this application form.

All referenced forms may be accessed electronically, in WORD and PDF versions, on the [Air Emissions Permits](#) webpage.

Attachment	Attachment Name	Form No.	Required?	Attached
AA	<i>Copy of Public Notice of Application and Original Certification of Notice Form</i>	DEEP-APP-005A	Required	☒
A	<i>Executive Summary</i>	DEEP-NSR-APP-222	Required	☒
B	<i>Applicant Background Information</i>	DEEP-APP-008	Required	☒
C	<i>Site Plan - An 8 ½" X 11" copy of the Site Plan</i>	<i>No DEEP form</i>	Required	☒
D	<i>USGS Map - An 8 ½" X 11" copy of the relevant portion of a USGS Quadrangle Map indicating the exact location of the facility or site</i>	<i>No DEEP form</i>	Required	☒
E	<i>Supplemental Application Forms</i>			--
	Select the appropriate forms for the source types listed in Part II of this form.	E201: <i>Manufacturing or Processing Operations</i>	If Applicable	☒
		E201A: <i>Anaerobic Digestion Facility</i>	If Applicable	☐
		E202: <i>Fuel Burning Equipment</i>	If Applicable	☐
		E203: <i>Incinerators or Flares</i>	If Applicable	☐
		E203A: <i>Crematory Units</i>	If Applicable	☐
		E204: <i>Volatile Liquid Storage</i>	If Applicable	☒
		E205: <i>Surface Coating or Printing Operations</i>	If Applicable	☐
		E206: <i>Metal Plating or Surface Treatment Operations</i>	If Applicable	☐
		E207: <i>Metal Cleaning Degreasers</i>	If Applicable	☐
		E208: <i>Concrete, Asphalt Concrete, Mineral Processing or Other Similar Equipment</i>	If Applicable	☐
		E209: <i>Site Remediation Equipment</i>	If Applicable	☐
		E210: <i>Air Pollution Control Equipment</i>	If Applicable	☒
		E211: <i>Stack Parameters</i>	Required	☒
		E212: <i>Unit Emissions</i>	Required	☒
F	<i>Premises Information Form</i>	DEEP-NSR-APP-217	Required	☒
G	<i>BACT Determination Form</i>	DEEP-NSR-APP-214	If Applicable	☐
H	<i>Major Modification Determination Form</i>	DEEP-NSR-APP-213	If Applicable	☒
I	<i>Prevention of Significant Deterioration (PSD) of Air Quality Form</i>	DEEP-NSR-APP-216	If Applicable	☐
J	<i>Non-Attainment Review Form</i>	DEEP-NSR-APP-215	If Applicable	☐
K	<i>Operation and Maintenance Plan</i>	<i>No DEEP form</i>	If Applicable	☐
L	<i>Ambient Air Quality Analysis Form</i>	DEEP-NSR-APP-218	Required	☒
M	<i>Applicant Compliance Information</i>	DEEP-APP-002	Required	☒

Part V: Attachments (continued)

Attachment	Attachment Name	Form No.	Required?	Attached
N	Marked Up Permit - For non-minor modifications, attach a marked up copy of the current NSR permit noting proposed changes	---	If Applicable	☐
O	<i>Coastal Consistency Review Form</i>	DEEP-APP-004	If Applicable	☐
P	Copy of Response to Request for Natural Diversity Data Base (NDDDB) State Listed Species Review Form and additional documentation	---	If Applicable	☐
Q	Conservation or Preservation Restriction Information	<i>No DEEP form</i>	If Applicable	☐
R	Copy of the Written Environmental Justice Public Participation Plan Approval Letter	---	If Applicable	☒

Part VI: Applicant Certification

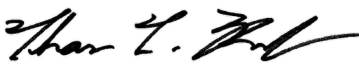
The authorized representative **and** the individual(s) responsible for actually preparing the application must sign this part. An application will be considered insufficient unless all required signatures are provided.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.

I certify that this application is on complete and accurate forms as prescribed by the commissioner without alteration of the text.

I certify that I have complied with all notice requirements as listed in section 22a-6g of the General Statutes."

APPLICANT:

Signature of Applicant		Date	08/14/2025
Name of Applicant (print or type)	Thomas Keefe		
Title (if applicable)	VP EHS		
PREPARER:			
Signature of Preparer		Date	8/14/2025
Name of Preparer (print or type)	Gianna Aiezza		
Title (if applicable)	Principal Engineer		

Submit one hardcopy and one electronic copy of the completed and signed application package.

The hardcopy of the completed and signed application package shall be submitted to:

CENTRAL PERMIT PROCESSING UNIT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CONNECTICUT 06106-5127

The electronic copy of the completed and signed application form shall be submitted to:

DEEP.BAM.AirPermits@ct.gov. Where the file size of attachments exceed the allowable limit, please contact DEEP.BAM.AirPermits@ct.gov to arrange an alternate method of submitting the electronic copy.

Your application is not considered received by the Department until the hardcopy of the completed and signed application is submitted to the address above.

Note: A *Permit Application Transmittal Form* (DEEP-APP-001) is **not** required with this application form.

A copy of the published notice of the permit application must also be sent to the chief elected official of the municipality in which the regulated activity is proposed.

ATTACHMENT A EXECUTIVE SUMMARY

Attachment A: Executive Summary

Applicant Name: Global New Haven Terminals LLC

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-200) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this attachment to provide information for the project which is the subject of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Part I: Location of Facility or Activity	New Haven, CT
Part II: Application Table of Contents	
Provide a Table of Contents of the application which includes the <i>Permit Application for Stationary Sources of Air Pollution Form</i> (DEEP-NSR-APP-200), and a list of all supplemental application forms, plans, drawings, reports, studies, or other supporting documentation which are attached as part of the application, along with the corresponding attachment label and the number of pages (e.g., Executive Summary - Attachment A - 4 pgs.).	
New Source Review Application (DEEP-NSR-APP-200) - 10 pages	
Attachment A - Executive Summary - 5 pages	
Attachment B - Applicant Background Information - 5 pages	
Attachment C - Site Plan - 1 page	
Attachment D - USGS Map - 1 page	
Attachment E201 - Manufacturing or Processing Operation for GEU2 - 3 pages	
Attachment E201-A - Process Flow Diagram Attachment - 1 page	
Attachment E201-B - Manufacturer Information for VRU-1 - 5 pages	
Attachment E201-B - Manufacturer Information for VRU-2 - 2 pages	
Attachment E210 - Air Pollution Control Device GEU2 - 10 pages	
Attachment E211 - Stack Parameters for GEU2 - 1 page	
Attachment E212 - Unit Emissions for GEU2 - 2 pages	
Attachment E204 - Volatile Liquid Storage for U28a - 5 pages	
Attachment E204-A - Process Flow Diagram - 1 page	
Attachment E204-B - Manufacturer Information - 1 page	
Attachment E204-C - Safety Data Sheets - 35 pages	
Attachment E210 - Air Pollution Control Device (U28a) - 9 pages	
Attachment E210-A - Manufacturer Specifications for Air Pollution Control Equipment (U28a) - 1 page	
Attachment E211 - Stack Parameters (U28a) - 1 page	
Attachment E212 - Unit Emissions (U28a) - 2 pages	
Attachment E212-A Potential to Emit for Tank 123 - 10 pages	
Attachment E212-B - MASC Screening Spreadsheet - 8 hour scenario (U28a) - 1 page	
Attachment E212-B - MASC Screening Spreadsheet - 30 min scenario - Uncontrolled Tank Cleaning (U28a) - 1 page	
Attachment E212-B - MASC Screening Spreadsheet - 30 min scenario- Controlled Tank Cleaning (U28a) - 1 page	

☒ Check here if additional sheets are necessary, and label and attach them to this sheet.

Attachment A – Executive Summary

Table of Contents Continuation Page

Attachment E212-B – MASC Screening Spreadsheet – 30 min Scenario – Refill After Landing (U28a) – 1 page

Attachment E212-C – Greenhouse Gas Emissions (U28a) – 1 page

Attachment F217 – Premises Information – 10 pages

Attachment G – BACT Analysis for Loading Arm (GEU2) – 7 pages

Attachment G1 – BACT Background Search for Loading Arm GEU2 – 1 page

Attachment G3 – BACT Reviews Summary for Loading Arm (GEU2) – 1 page

Attachment G – BACT Analysis for Tank 123 (U28a) – 7 pages

Attachment G1 – BACT Background Search for Tank 123 (U28a) – 1 page

Attachment G1-A – Background Search Attachment for Tank 123 (U28a) – 1 page

Attachment G2 – BACT Economic Impact Analysis for Tank 123 (U28a) – 5 pages

Attachment G2-A – Cost Estimate (U28a) – 1 page

Attachment G3 – BACT Reviews Summary for Tank 123 – 1 page

Attachment H – Major Modification Determination Form – 5 pages

Attachment L – Ambient Impact Analysis Form – 4 pages

Attachment M – Applicant Compliance Information – 2 pages

Attachment N – Annotated Permit – 41 pages

Attachment R – Environmental Justice Plan and Final Report Approvals and Environmental Justice Plan – 75 pages

Attachment AA – Published Public Notice of Permit Application – 6 pages

Attachment AA-1 Public Hearing Response to Comments

Attachment A: Executive Summary (continued)

Part III: Project Description

Provide a brief project description which includes:

- a description of the proposed regulated activities;
- a synopsis of the environmental and engineering analyses;
- summaries of data analysis;
- a conclusion of any environmental impacts and the proposed timeline for construction; and
- for a renewal or modification provide a list of changes in circumstances or information on which the previous permit or registration was based.

See Attachment A-1

☒ Check here if additional sheets are necessary, and label and attach them to this sheet.



349 Northern Blvd, Suite 3
Albany, NY 12204
Phone: 518.453.2203
Fax: 518.453.2204
www.envirospeceng.com

**Attachment A-1 Executive Summary
Global New Haven Terminals LLC
New Source Review (NSR) Permit Application
Tank 123**

Project Overview

Global New Haven Terminals LLC is submitting this New Source Review (NSR) permit application to operate Tank 123 in gasoline service. This tank is equipped with an internal floating roof (IFR) and is currently permitted for distillate service. The application also includes the addition of one gasoline loading arm, which used to be in ethanol service and would subject the facility to 40 CFR 60 Subpart XXa when it is changed to gasoline service. There is no corresponding increase in overall facility throughput associated with the additional gasoline loading arm. There is also a planned upgrade to an existing gasoline arm. No permit modification is required for that upgrade since the arm was already permitted for gasoline service.

The proposed timeline for bringing the additional gasoline loading arm into service is approximately three to four weeks after permit approval.

The following sections provide an overview of the environmental and engineering analyses completed as part of this project.

Emissions Calculations

As part of the engineering analysis of this project, emissions calculations were completed in accordance with AP-42. Emissions calculations are attached to this application in Attachment E212-A of the application and include a comparison of uncontrolled and controlled degassing, which was used to support the Best Available Control Technology (BACT) Analysis included in Attachment G. Calculations for greenhouse gases are also provided in Attachment E212-A for controlled cleanings as backup for the CO₂ Equivalents Calculator v1.1.

Best Available Control Technology (BACT) Analysis

In accordance with RCSA sections 22a-174-3a(d)(3)(H) and -3a(g), a BACT analysis was completed for the proposed project. The BACT analysis for Tank 123 evaluated the following control options:

- Portable VCU for tank cleaning with IFR
- Portable VCU for tank landings with IFR
- Internal Floating Roof



349 Northern Blvd, Suite 3
Albany, NY 12204
Phone: 518.453.2203
Fax: 518.453.2204
www.envirospeceng.com

As described in Attachment G, a portable VCU for tank cleaning is considered BACT based on the CT BACT database and was selected as the control technology for Tank 123. A portable VCU was not selected for a refill after a landing due to cost given the number of landings per year relative to the typical number of cleanings per year. Also, as demonstrated in Attachment E to this permit application, an uncontrolled cleaning does not pass MASC for benzene whereas an uncontrolled refill after a landing does pass MASC screening, so the Portable VCU was only selected for tank cleanings.

For the BACT analysis for the additional loading arms, the facility is already equipped with primary and backup VRUs at the loading rack. A VRU is considered BACT based on the CT BACT database.

Environmental Justice Public Participation Plan

In accordance with CGS § 22a-20a, Connecticut's Environmental Justice statute, an Environmental Justice Public Participation Plan ("the Plan") was submitted and tentatively approved by CTDEEP on May 9, 2025. Following completion of public meetings and other outreach, an Environmental Public Participation Final Report was submitted to CTDEEP on July 23, 2025. CT DEEP approved the Final Report on August 12, 2025. The Plan and approvals are provided in Attachment R to this application.

As part of the outreach plan, meetings were held with community representatives, including Alder Sal Punzo, Environmental Advisory Council Members Laura Cahn and Kathy Fay, Michael Piscitelli from the Office of Economic Development, the Mayor's Office staff and the New Haven Port Authority leadership. These discussions informed Global's understanding of local priorities, including site maintenance, environmental visibility, youth engagement and environmental awareness.

To address local community priorities, Global has met with the Mayor's Office and other Stakeholders to discuss projects that would benefit the community focusing on:

- Urban greening and beautification efforts in the Annex neighborhood or proximate EJ Areas
- Environmental education and engagement programming for local youth
- Small-scale public improvements supporting neighborhood well-being

Discussions are ongoing and will be incorporated into an Environmental Benefits Plan which will be submitted to CT DEEP when finalized.

ATTACHMENT B APPLICANT BACKGROUND INFORMATION



**Connecticut Department of
Energy & Environmental Protection**

Applicant Background Information

Check the box by the entity which best describes the applicant and complete the requested information. **You must choose one of the following:** corporation, limited liability company, limited partnership, general partnership, voluntary association and individual or business type. Be sure to include the signatory authority or authorized representative certifying the application.

☐ **Corporation**

☐ Check the box if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. Parent Corporation

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

2. Subsidiary Corporation:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

3. Directors:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

4. Officers:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Applicant Background Information (continued)

☒ **Limited Liability Company**

☐ Check the box if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. List each member.

Name: **Global New Haven Terminals LLC**

Mailing Address: 800 South Street, Suite 500

City/Town: Waltham

State: MA

Zip Code: 02453

Business Phone: 781-398-4132

ext.:

E-mail: TKeefe@globalp.com

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

2. List any manager(s) who, through the articles of organization, are vested the management of the business, property and affairs of the limited liability company.

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Applicant Background Information (continued)

☐ **Limited Partnership**

☐ Check the box if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. General Partners:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

2. Limited Partners:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Applicant Background Information (continued)

☐ **General Partnership**

☐ Check the box if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. General Partners:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

Contact Person:

Phone:

ext.

E-mail:

Applicant Background Information (continued)

☐ **Voluntary Association**

☐ Check box if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. List authorized persons of association or list all members of association.

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

☐ **Individual or Other Business Type**

☐ Check the box, if additional sheets are necessary. If so, label and attach additional sheet(s) to this sheet with the required information.

1. Name:

Mailing Address:

City/Town:

State:

Zip Code:

Business Phone:

ext.:

E-mail:

2. State other names by which the applicant is known, including business names.

Name:

ATTACHMENT C SITE PLAN



ATTACHMENT D USGS MAP

ATTACHMENT E – SUPPLEMENTAL NSR FORMS FOR
LOADING ARM (GEU2)

ATTACHMENT E201 – MANUFACTURING OR PROCESSING
OPERATIONS – LOADING ARM (GEU2)

Attachment E201: Manufacturing or Processing Operations Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC

Unit No.: GEU2

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-201) to ensure the proper handling of your application. Print or type unless otherwise noted.

DEEP USE ONLY

App. No.: _____

Complete a separate form for *each* distinct manufacturing or process operation.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Part I: General

Manufacturing or Process Description: Gasoline Loading Arm

Subunit No.	Make & Model	Construction Date	Subunit Function	Cont. (C) or Batch (B)	Hrs/Batch Batches/Day	Maximum Operating Schedule
GEU2a	N/A	3-4 weeks after permit approval	gas loading	C		8760
Is this unit subject to Title 40 CFR Part 60, NSPS?		☐ No ☒ Yes, Subpart(s) XXa				
Is this unit subject to Title 40 CFR Part 63, MACT?		☐ No ☒ Yes, Subpart(s) R				

Part II: Raw Material and Product Information

Subunit No.	Raw Material(s) Used	Maximum Hourly Quantity Input of Each Raw Material	List of Product(s)	Quantity Product Output	
				Maximum Hourly	Maximum Annual
GEU2a	Gasoline	36000 gallons	gasoline	36000 gallons	315,360,000 gal

Part III: Process Heat Information

Complete this part **only** if the fuel burning source is **not** currently permitted and the fuel burning source does **not** meet the requirements indicated in the Fuel Burning Equipment form (DEEP-NSR-APP-202), i.e., the primary purpose of the fuel burning source is **not** for heat or power generation.

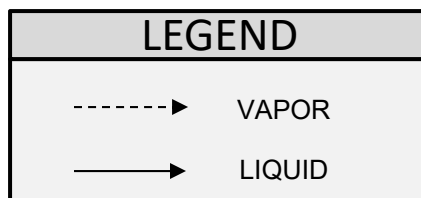
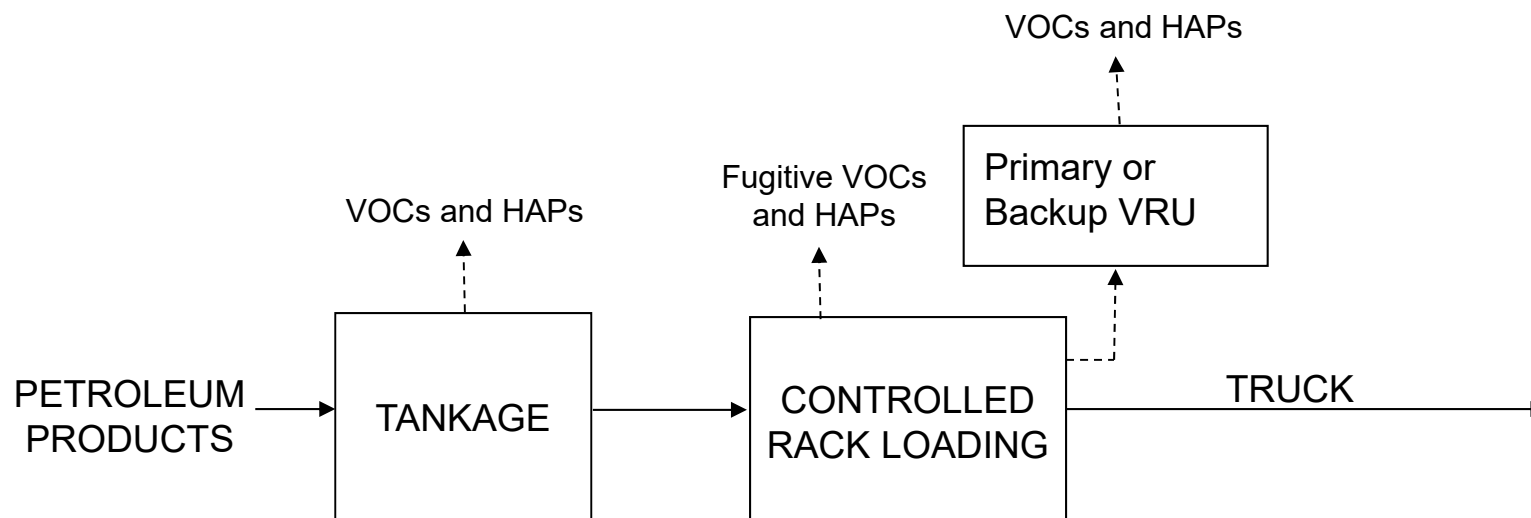
Subunit No.	Fuel Type	% Sulfur by Weight	Burner Maximum Rated Capacity (MMBtu/hr)	Maximum Hourly Fuel Firing Rate	Maximum Annual Fuel Consumption	Provides Heat to Subunit(s)

Part IV: Attachments

Please check the attachments being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E201-A, etc.) and be sure to include the applicant's name.

☒	Attachment E201-A:	<i>Process Information and Flow Diagram</i> – Submit a process flow diagram indicating all related equipment, air pollution control equipment and stacks, as applicable. Identify all materials entering and leaving each such device indicating quantities and parameters relevant to the proper operation of the device. Indicate all monitoring devices and controls. REQUIRED
☒	Attachment E201-B:	<i>Manufacturer Information</i> - Submit copies of the manufacturer specification sheets for the unit, and any air pollution control equipment and monitoring systems. REQUIRED

ATTACHMENT E201-A – PROCESS FLOW DIAGRAM (GEU2)



ATTACHMENT E201-B MANUFACTURER INFORMATION
FOR VRU-1

GASOLINE VAPOR RECOVERY SYSTEM

OPERATING & MAINTENANCE
MANUAL

Prepared For

GULF OIL COMPANY
EAST PROVIDENCE, RHODE ISLAND

Purchase Order GH10867 (PRO)

By

JOHN ZINK COMPANY
TULSA, OKLAHOMA

Shop Order RS-X50541

May, 1981

Revised November, 1982

MODIFIED "X" UNIT
MARCH 18, 1982

Preparation, Start-up Procedures	IV.
Points	V.
e, Troubleshooting, and Service Bulletins. .	VI.
d Spare Parts.	VII.
wings.	VIII.
.	IX.
.	X.

Model #
AA-355-9-B
Re Installed in
New Haven CT
6. 1985

This Operating and Maintenance Manual and the information revealed by it is submitted with the understanding that it is the confidential and proprietary property of the John Zink Company and is not to be disclosed to others without written permission. Unauthorized use is expressly forbidden.

OPERATING AND MAINTENANCE MANUAL
FOR
HIGH EFFICIENCY GASOLINE VAPOR SYSTEM
RECOVERY SYSTEM RETROFIT
MODEL NO.: HAT-1100-355-9-8-RETRO
CUSTOMER: GULF OIL
LOCATION: NEW HAVEN, CT
SHOP ORDER NO.: RR-909792
PURCHASE ORDER NO.:
DATE: FEBRUARY, 1998

WARNING

DO NOT ATTEMPT TO OPERATE OR MAINTAIN THIS SYSTEM WITHOUT FIRST FAMILIARIZING YOURSELF WITH THESE OPERATING AND MAINTENANCE INSTRUCTIONS! IMPROPER OPERATION OF THE EQUIPMENT WILL RESULT IN INJURY AND OR LOSS OF LIFE TO PERSONS AND DAMAGE TO EQUIPMENT.

By

JOHN ZINK COMPANY
11920 EAST APACHE, P.O. BOX 21220
TULSA, OKLAHOMA 74121-1220

SERVICE:	918-234-2908
SPARE PARTS:	918-234-2993
EMERGENCY:	918-234-1800
FAX. NO.:	918-234-1976

Requests for field service and spare parts can be made during our normal office hours from 8:00 a.m. to 5:00 p.m.(CST) Monday thru Friday. Please reference the John Zink shop order number when requesting service. Minimum order is \$250.00.

SECTION IV. DESIGN BASIS AND PERFORMANCE SUMMARY

The John Zink Adsorption/Absorption Gasoline Vapor Recovery System is based on proprietary technology, sound engineering practices, terminal loading characteristics, and other data furnished by the customer. The retrofit package provided increases the processing capacity of the existing VRU. Following are the new product loading patterns the system is designed for.

PRODUCT LOADING PATTERNS CONNECTED TO THE VRU:

Total Gasoline and Distillate

Design Instantaneous Rate	8,000 gpm.
15 Minute Design Throughput	50,000 gal.
4 Hour Design Throughput	350,000 gal.
Daily Design Throughput	1,500,000 gal.

GASOLINE PROPERTIES:

Reid Vapor Pressure:

Summer..... Same as Original.
Winter Same as Original.

Temperature:

Summer..... Same as Original.
Winter..... Same as Original.

DESIGN HYDROCARBON CONCENTRATION:

Vapors from loading rack 40 % vol.

POWER REQUIRED: 480V/3ph/60Hz.

ELECTRICAL CLASSIFICATION:..... Class 1, Group D, Division 1.

* Assumed for design.

PERFORMANCE:

The John Zink Carbon Adsorption/Absorption Gasoline Vapor Recovery System will remove the gasoline vapors from the incoming air/hydrocarbon vapor mixture. Hydrocarbons adsorbed in the activated carbon are recovered and returned to the owner's storage tanks.

SUMMARY

GUARANTEED EMISSIONS LEVEL:

10mg Hydrocarbon/Liter Product Loaded.

ESTIMATED RECOVERY:

2 Gallons Hydrocarbon/1000 Gallons Loaded @ 40 % inlet hydrocarbon concentration.
3 Gallons Hydrocarbon/1000 Gallons Loaded @ 60 % inlet hydrocarbon concentration.

GASOLINE CIRCULATION:

Same as original VRU.

PRESSURE DROP:

Same as original VRU.

POWER REQUIREMENTS: (Estimation only. See John Zink drawings, specification sheets, and motor name plate data for more information.)

Booster blower package adds to original VRU:
41 BHP Est.
50 Connected HP.

ATTACHMENT E201-B MANUFACTURER INFORMATION FOR
VRU-2

SECTION II

DESIGN BASIS

The John Zink Carbon Adsorption-Absorption Hydrocarbon Vapor Recovery Unit design is based on proprietary technology, sound engineering practices, and data furnished by the customer and summarized as follows:

APPLICATION:

Conversion of existing John Zink VRU to become an AAW-3B-90-80-8 (SO# S54563)

DESIGN HYDROCARBON EMISSION CONTROL REQUIREMENT:

2 Milligrams of VOC vented per liter of product transferred

VRU ELEVATION ABOVE SEA LEVEL:

Approximately 60 Feet

DISTANCE OF VRU FROM PRODUCT LOADING RACK:

Existing vapor piping will be utilized.

ELECTRICAL CLASSIFICATION:

Class 1, Group D, Div 2-Hazardous Area as Defined by U.S. National Electric Code

AMBIENT TEMPERATURE:

Minimum: -20 °F

Maximum: 100 °F

PRODUCTS LOADED (subject to vapor control):

Gasoline, diesel, and ethanol (blended)

MAXIMUM PRODUCT LOADING PROFILE CONNECTED TO VRU (AFTER RETROFIT):

Total Products Loaded

Instantaneous rate, gpm	6,000
15 minute throughput, gallons:	45,000
1 hour throughput, gallons:	135,000
4 hour throughput, gallons:	475,000
24 hour throughput, gallons:	2,400,000

VAPOR GROWTH FACTOR: 1.0

VAPOR PROPERTIES:

Inlet temperature: Ambient

Inlet pressure range: 0-12" water gauge
Hydrocarbon concentration: 0 Vol. % - 40 Vol. %

LIQUID ABSORBENT PROPERTIES:

Name: Gasoline
Maximum temperature 90 °F
Maximum true vapor pressure: 9 psia
Specific gravity @ 60 °F: 0.7

ABSORBENT PIPING AVAILABLE TO AND FROM STORAGE TANK:

Existing piping and supply pumps will be utilized.

UTILITIES AVAILABLE:

Electricity:
Main: 480 volts, 3 phase, 60 cycles
Control: 120 volts, 1 phase, 60 cycles

ATTACHMENT E210 – AIR POLLUTION CONTROL
EQUIPMENT (GEU2)

Attachment E210: Air Pollution Control Equipment Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC
 Unit No(s): GEU2

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the instructions (DEEP-NSR-INST-210) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this supplemental application form to provide the air pollution control equipment information for all units that are part of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I. Summary Sheet

Unit No.	Unit Description	Control Equipment		Overall Control Efficiency (%)	Pollutant(s) Controlled	*Basis	Stack No.
		No.	Type				
GEU2	VRU 1	C26a	VRU	N/A	VOC	N/A	S26a
GEU2	VRU 2	C26b	VRU	N/A	VOC	N/A	S26b

* Submit supporting documentation with this form, e.g., stack test data, manufacturer's guarantees, etc. as Attachment E210(Control Equipment No.).

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Part II: Specific Control Equipment

Complete the appropriate subsection for each *distinct* piece of control equipment.

1. Adsorption Device

Control Equipment Number of Adsorption Unit: **C26a**

Unit Number of Unit which Uses Adsorption Unit: **GEU2**

Manufacturer and Model Number		John Zink AA-355-9-8
Construction Date		06/1985
Adsorbent		☒ Activated Charcoal Type: ☒ Granulated ☐ Other (specify): ☐ Powdered
Number of Beds		2
Dimensions of Beds ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.	Bed No. 1	Thickness in direction of gas flow: inches Cross-section area: square inches
	Bed No. 2	Thickness in direction of gas flow: inches Cross-section area: square inches
	Bed No. 3	Thickness in direction of gas flow: inches Cross-section area: square inches
Inlet Gas Temperature		90 °F
Design Pressure Drop Across Unit		inches H ₂ O
Operating Pressure Drop Range Across Unit		- inches H ₂ O
Gas Flow Rate		859 scfm
Type of Regeneration		☐ Replacement ☐ Steam ☒ Other (specify): Vacuum and purge air stripping
Method of Regeneration		☒ Alternate use of beds ☐ Source shut down ☐ Other (specify): Describe procedures used to ensure that emissions from regeneration process are treated or minimized:
Maximum Operation Time Before Regeneration		
Is Adsorber Equipped with a Break-Through Detector?		☐ Yes ☐ No
Pollutant(s) Controlled		VOCs
Collection Efficiency(s) of Adsorber		%
Control Efficiency(s) of Adsorber		%
Overall Control Efficiency(s)		%

Part II: Specific Control Equipment

Complete the appropriate subsection for each *distinct* piece of control equipment.

1. Adsorption Device

Control Equipment Number of Adsorption Unit: **C26b**

Unit Number of Unit which Uses Adsorption Unit: **GEU2**

Manufacturer and Model Number		John Zink AAW-3B-90-80-8
Construction Date		2017
Adsorbent		☒ Activated Charcoal Type: ☒ Granulated ☐ Other (specify): ☐ Powdered
Number of Beds		2
Dimensions of Beds ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.	Bed No. 1	Thickness in direction of gas flow: inches Cross-section area: square inches
	Bed No. 2	Thickness in direction of gas flow: inches Cross-section area: square inches
	Bed No. 3	Thickness in direction of gas flow: inches Cross-section area: square inches
Inlet Gas Temperature		90 °F
Design Pressure Drop Across Unit		inches H ₂ O
Operating Pressure Drop Range Across Unit		- inches H ₂ O
Gas Flow Rate		645 scfm
Type of Regeneration		☐ Replacement ☐ Steam ☒ Other (specify): Vacuum and purge air stripping
Method of Regeneration		☒ Alternate use of beds ☐ Source shut down ☐ Other (specify): Describe procedures used to ensure that emissions from regeneration process are treated or minimized:
Maximum Operation Time Before Regeneration		
Is Adsorber Equipped with a Break-Through Detector?		☐ Yes ☐ No
Pollutant(s) Controlled		VOCs
Collection Efficiency(s) of Adsorber		%
Control Efficiency(s) of Adsorber		%
Overall Control Efficiency(s)		%

2. Afterburner (Incinerator for Air Pollution Control)

Control Equipment Number of Afterburner: _____

Unit Number of Unit which Uses Afterburner: _____

Manufacturer and Model Number					
Construction Date					
Type of Afterburner		☐ Thermal ☐ Catalytic ☐ Other (specify): _____			
Combustion Chamber Dimensions	Length	inches			
	Cross-section area	square inches			
Inlet Gas Temperature		°F			
Operating Temperature Range of Chamber		- °F			
Auxiliary Fuel Information					
Fuel Type	% Sulfur by Weight	Higher Heating Value (BTU)	Maximum Hourly Firing Rate	Maximum Annual Fuel Usage	Units (gal or ft³)
Number of Burners					
Burner Maximum Heat Input	Burner No. 1		BTU per hour		
	Burner No. 2		BTU per hour		
	Burner No. 3		BTU per hour		
Catalyst Used			☐ Yes ☐ No		
Catalyst Type					
Catalyst Sampling Interval					
Heat Exchanger Used			☐ Yes ☐ No		
Type of Heat Exchanger					
Heat Recovery					
Reagent Used					
Gas Flow Rate			scfm		
Combustion Chamber Design Residence Time			seconds		
Moisture Content of Exhaust Gas			%		
Heat Recovery			%		
Pollutant(s) Controlled					
Collection Efficiency(s) of Afterburner			%		

2. Afterburner (Incinerator for Air Pollution Control) (continued)

Control Equipment Number of Afterburner: _____

Unit Number of Unit which Uses Afterburner: _____

Control Efficiency(s) of Afterburner	%
Overall Control Efficiency(s)	%

3. Condenser

Control Equipment Number of Condenser: _____

Unit Number of Unit which Uses Condenser: _____

Manufacturer and Model Number				
Construction Date				
Heat Exchange Area	square feet			
Coolant Flow Rate	☐ Water: gpm ☐ Air: scfm ☐ Other (specify):			
Gas Flow Rate	scfm			
Coolant Temperature	In: °F	Out: °F		
Gas Temperature	In: °F	Out: °F		
Pollutant(s) Controlled				
Collection Efficiency(s) of Condenser	%			
Control Efficiency(s) of Condenser	%			
Overall Control Efficiency(s)	%			

4. *Electrostatic Precipitator*

Control Equipment Number of Electrostatic Precipitator: _____

Unit Number of Unit which Uses Electrostatic Precipitator: _____

Manufacturer and Model Number	
Construction Date	
Collecting Electrode Area	square feet
Gas Flow Rate	scfm
Voltage Across the Precipitator Plates	kV
Resistivity of Pollutants	ohms
Number of Fields in the Precipitator	
Grain Loading	In: grains/scf Out: grains/scf
Pollutant(s) Controlled	
Collection Efficiency(s) of Electrostatic Precipitator	%
Control Efficiency(s) of Electrostatic Precipitator	%
Overall Control Efficiency(s)	%

5. Filter

Control Equipment Number of Filter: _____

Unit Number of Unit which Uses Filter: _____

Manufacturer and Model Number	
Construction Date	
Filtering Material	
Air to Cloth Ratio	square feet
Net Cloth Area	square feet
Number of Bags	
Cleaning Method	☐ Shaker ☐ Reverse Air ☐ Pulse Air ☐ Pulse Jet ☐ Other (specify):
Gas Cooling Method	☐ Ductwork Length: ft. Diameter: in. ☐ Heat Exchanger ☐ Bleed-in Air ☐ Water Spray ☐ Other (specify): ☐ Not Applicable
Cooling Medium Flow Rate	☐ Bleed-in Air: scfm ☐ Water Spray: gpm
Exhaust Gas Flow Rate	scfm
Inlet Gas Temperature	°F
Inlet Gas Dew Point	°F
Grain Loading	In: grains/scf Out: grains/scf
Design Pressure Drop Across Unit	inches H ₂ O
Operating Pressure Drop Range Across Unit	- inches H ₂ O
Pollutant(s) Controlled	
Collection Efficiency(s) of Filter	%
Control Efficiency(s) of Filter	%
Overall Control Efficiency(s)	%

6. Cyclone

Control Equipment Number of Cyclone: _____

Unit Number of Unit which Uses Cyclone: _____

Manufacturer and Model Number				
Construction Date				
Type of Cyclone	☐ Single ☐ Multiple: Number of Cyclones			
Gas Flow Rate	scfm			
Grain Loading	In:	grains/scf	Out:	grains/scf
Design Pressure Drop Across Unit	inches H ₂ O			
Operating Pressure Drop Range Across Unit	- inches H ₂ O			
Pollutant(s) Controlled				
Collection Efficiency(s) of Cyclone	%			
Control Efficiency(s) of Cyclone	%			
Overall Control Efficiency(s)	%			

7. Mist Eliminator

Control Equipment Number of Mist Eliminator: _____

Unit Number of Unit which Uses Mist Eliminator: _____

Manufacturer and Model Number				
Construction Date				
Face Velocity	feet per second ☐ Vertical Flow ☐ Horizontal Flow ☐ Diagonal			
Design Pressure Drop Across Unit	inches H ₂ O			
Operating Pressure Drop Range Across Unit	- inches H ₂ O			
Flow Rate	scfm			
Pollutant(s) Controlled				
Collection Efficiency(s) of Mist Eliminator	%			
Control Efficiencies of Mist Eliminator	% @ 1 mmHg % @ 5 mmHg % @ 10 mmHg			
Overall Control Efficiency(s)	%			

8. Scrubber

Control Equipment Number of Scrubber: _____

Unit Number of Unit which Uses Scrubber: _____

Manufacturer and Model Number		
Construction Date		
Type of Scrubber		☐ Venturi
		☐ Wet Fan
		☐ Packed: Packing Material Size: Packed Height: inches
		☐ Spray: Number of Nozzles: Nozzle No. 1 Pressure: psig Nozzle No. 2 Pressure: psig Nozzle No. 3 Pressure: psig Nozzle No. 4 Pressure: psig
		☐ Other (specify):
Design Pressure Drop Across Unit		inches H ₂ O
Operating Pressure Drop Range Across Unit		- inches H ₂ O
Type of Flow		☐ Concurrent ☐ Countercurrent ☐ Crossflow
Scrubber Geometry	Length in direction of gas flow	feet square inches
	Cross-sectional area	
Chemical Composition of Scrubbing Liquid		
Scrubbing Liquid/Reagent Flow Rate		gpm
Fresh Liquid Make-Up Rate		gpm
Scrubber Liquid/Reagent Circulation		☐ One Pass ☐ Recirculated
Scrubber Liquid/Reagent pH		
Gas Flow Rate		scfm
Inlet Gas Temperature		°F
Design Outlet Grain Loading		gr/dscf
Pollutant(s) Controlled		
Collection Efficiency(s) of Scrubber		%
Control Efficiency(s) of Scrubber		%
Overall Control Efficiency(s)		%

9. Other Control Equipment for Degreasing Equipment

Name of Control Equipment: _____

Control Equipment Number of Control Equipment: _____

Unit Number of Unit which Uses Control Equipment: _____

Manufacturer and Model Number	
Construction Date	
Method of Control	☐ Refrigerator Chiller ☐ Water Spray ☐ Other (specify): _____
Pollutant(s) Controlled	
Collection Efficiency(s) of Control Equipment	%
Control Efficiency(s) of Control Equipment	%
Overall Control Efficiency(s)	%

10. Other Type of Control Equipment

Name of Control Equipment: _____

Control Equipment Number of Control Equipment: _____

Unit Number of Unit which Uses Control Equipment: _____

Manufacturer and Model Number	
Construction Date	
Pollutant(s) Controlled	
Collection Efficiency(s) of Control Equipment	%
Control Efficiency(s) of Control Equipment	%
Overall Control Efficiency(s)	%

Part III: Attachments

Please check the attachment being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E210(Control Equipment No.), etc.) and be sure to include the applicant's name.

- ☒ Attachment E210: *Manufacturer Information* - Submit supporting documentation for each piece of air pollution control equipment listed in Part I of this form, e.g., stack test data, manufacturer's guarantees, etc. Label each document in this Attachment referencing the applicable air pollution control equipment number as indicated in Part I of this form using this format: Attachment E210(Control Equipment No.). **REQUIRED**

ATTACHMENT E210 (C26a) – VRU 1

REFER TO ATTACHMENT 201-B

ATTACHMENT E210 (C26b) – VRU 2

REFER TO ATTACHMENT 201-B

ATTACHMENT E211 – STACK PARAMETERS – GEU2

Attachment E211: Stack Parameters Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-211) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this supplemental application form to provide the stack parameter information for all units that are part of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Stack Parameters Summary

Stack No.	Unit No.(s)	Control Equipment No.(s)	Stack Height (feet)	Stack Diameter (feet)	Stack Exit Temp (°F)		Stack Exhaust Flow Rate (ACFM)		Stack Exit Direction (H or V)	Rain Hat (Y or N)	Stack Lining Material	Stack Distance to Nearest Property Line (feet)
					Max	Min	Max	Min				
S26a	GEU2	C26a	15	0.7	AMB	AMB					N/A	205
S26b	GEU2	C26a	15	0.7	AMB	AMB					N/A	205
S26c	GEU2	C26b	20	0.7	AMB	AMB					N/A	122
S26d	GEU2	C26b	20	0.7	AMB	AMB					N/A	122

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

ATTACHMENT E212 – UNIT EMISSIONS – LOADING ARM –
GEU2

Attachment E212: Unit Emissions Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC
 Unit No.: GEU2

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-212) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete a separate form for *each* unit.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Part I: Unit Emission Information

Pollutant	Potential Emissions at Maximum Capacity		Proposed Allowable Emissions		
	lb/hr	tpy	lb/hr	Other Units (specify)	tpy
Criteria Air Pollutants					
PM	N/A	N/A	N/A	N/A	N/A
PM₁₀	N/A	N/A	N/A	N/A	N/A
PM_{2.5} Total (filterable + condensable)	N/A	N/A	N/A	N/A	N/A
SO_x	N/A	N/A	N/A	N/A	N/A
NO_x	N/A	N/A	N/A	N/A	N/A
CO	N/A	N/A	N/A	N/A	N/A
VOC	N/A	N/A	N/A	N/A	N/A
Pb	N/A	N/A	N/A	N/A	N/A
GHG	N/A	N/A	N/A	N/A	N/A
Hazardous or Other Air Pollutants					

Potential Emissions Calculation Basis: No throughput or emissions change

Proposed Allowable Emissions Calculation Basis: No throughput or emissions change

Part II: Regulatory Standards

Enter the regulatory standard(s) and the proposed allowable emissions for each pollutant emitted by the unit using the same units (e.g., ppmvd, lb/MMBTU, lb/hour, lb/day, etc.). More than one regulatory standard will often apply to a unit for a particular pollutant, list all that apply. Enter the regulatory citation(s) for the standard(s).

NOTE: The applicant should be aware of any existing regulatory standard applicable to the unit and should not propose allowable emissions in excess of the regulatory standard(s).

Pollutant	Regulatory Standard(s) (specify units)	Proposed Allowable Emissions (specify units)	Regulatory Citation(s)
Criteria Air Pollutants			
PM			
PM₁₀			
PM_{2.5} Total (filterable + condensable)			
SO_x			
NO_x			
CO			
VOC			
Pb			
GHG			
Hazardous or Other Air Pollutants (Standards other than RCSCA §22a-174-29)			

Part III: Attachments

Please check the attachment being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E212-A, etc.) and be sure to include the applicant's name.

☐	Attachment E212-A: <i>Sample Calculations</i> - Submit sample calculations used to determine all emissions rates, excluding GHG. See Attachment E212-C for GHG emissions. REQUIRED
☐	Attachment E212-B: <i>RCSCA section 22a-174-29 Hazardous Air Pollutants Compliance</i> – Submit a completed CTMASC spreadsheet , or equivalent, to demonstrate compliance with RCSCA section 22a-174-29. REQUIRED
☐	Attachment E212-C: <i>Greenhouse Gas Emissions</i> – Submit a completed CO₂ Equivalents Calculator Spreadsheet , or equivalent, used to quantify Greenhouse Gas emissions, REQUIRED

ATTACHMENT E – SUPPLEMENTAL NSR FORMS FOR TANK
123 (U28a)

ATTACHMENT E204 – VOLATILE LIQUID STORAGE (U28a)

Attachment E204: Volatile Liquid Storage Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC
 Unit No.: U28a

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-204) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete a separate form for *each* tank farm.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Part I: General

Tank ID No.	Tank Type	Construction Date	Tank Capacity (gal)	Product Type	Subject to Title 40 CFR Part 60, NSPS?	Subject to Title 40 CFR Part 63, MACT?
123	Internal Floating Roof		6,400,000	Gasoline	☐ No ☒ Yes, Subpart Kb	☐ No ☒ Yes, Subpart R
123	Internal Floating Roof		6,400,000	Distillate	☐ No ☐ Yes, Subpart	☐ No ☐ Yes, Subpart
					☐ No ☐ Yes, Subpart	☐ No ☐ Yes, Subpart
					☐ No ☐ Yes, Subpart	☐ No ☐ Yes, Subpart
					☐ No ☐ Yes, Subpart	☐ No ☐ Yes, Subpart
					☐ No ☐ Yes, Subpart	☐ No ☐ Yes, Subpart

In lieu of completing Parts II – IV of this form, the output from EPA Tanks Emissions Estimation Software Program may be attached for each tank.

Is the EPA Tanks Emissions Estimation Software Program Output Attached? ☒ No ☐ Yes
 If yes, go to Part V.

Part II: Product Information

Tank ID No.	Product Type	Density (lb/gal)	Molecular Weight	True Vapor Pressure (psi)	
				At Maximum Storage Temperature	At Annual Average Storage Temperature
123	Gasoline	5.60	92	11	6.9
123	Distillate	7.1	188	0.013	0.005

Part III: Bulk Gasoline Plants or Terminals Only

Tank Farm Type	☐ Bulk Gasoline Plant ☒ Bulk Gasoline Terminal	
For loading incoming gasoline into the storage tanks	Submerged fill pipe ☒ Yes ☐ No Bottom fill ☐ Yes ☒ No Splash fill ☐ Yes ☒ No	
Is there a vapor balance system for filling storage tanks from transport vehicle tanks?	☐ Yes ☒ No	
Is there a vapor balance system for filling transport vehicle tanks from storage tanks?	☐ Yes ☒ No	
Is there a vapor recovery system for filling gasoline transport vehicles from storage tanks?	☒ Yes ☐ No If yes, specify type of vapor control device used: VRU	

Part IV: Storage Tank Information

A: All New, Modified or Replacement Storage Tanks

Tank ID No.	Tank Diameter (ft)	Tank Height or Length (ft)	Maximum Hourly Filling Rate (gal/hr)	Maximum Annual Throughput (gal/yr)	Tank Capacity (gal)
123	140	55	924,000	450,000,000	6,400,000

B: Fixed Roof Tanks Only

Tank ID No.	Paint Color		Average Vapor Space Height (ft)	Horizontal (H) or Vertical (V)	Underground (Yes/No)
	Roof	Sides			

Part IV: Storage Tank Information (continued)

C: Variable Vapor Space Tanks Only

Tank ID No.	Volume Expansion Capacity (gal)	Number of Transfers into the Tank per Year

D: All Floating Roof Tanks

Tank ID No	Riveted (R) or Welded (W) Tank Sides	Type of Primary Seal	Type of Secondary Seal	Shell Condition	Number of Support Columns	Effective Column Diameter (ft)
123	W	Mechanical Shoe	Mechanical Shoe	Average	8	0.7

Part IV: Storage Tank Information (continued)

E: Internal Floating Roof Tanks Only

Tank ID No.	Types of Deck Fittings	Number of Each Type	Design of Each Deck Fitting	Number of Each Design	Bolted Decks Only Length of Deck Seam (ft)
123	See PTE Attached				5

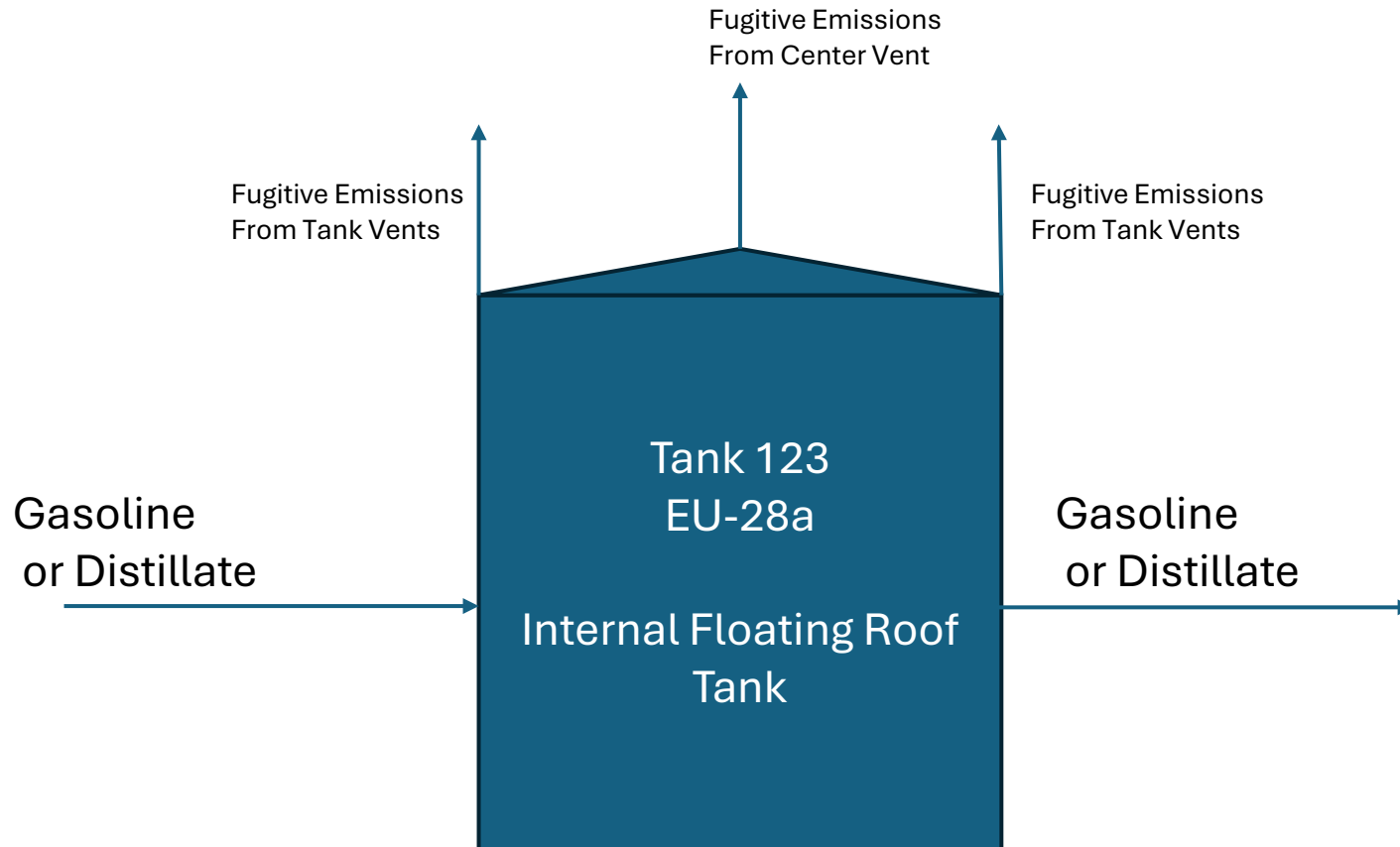
Part V: Attachments

Please check the attachments being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E204-A, etc.) and be sure to include the applicant's name.

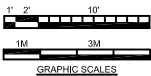
- ☒ Attachment E204-A: *Process Information and Flow Diagram* – Submit a process flow diagram indicating all related equipment, air pollution control equipment and stacks, as applicable. Identify all materials entering and leaving each such device indicating quantities and parameters relevant to the proper operation of the device. Indicate all monitoring devices and controls. **REQUIRED**
- ☒ Attachment E204-B: *Manufacturer Information* - Submit copies of the manufacturer specification sheets for the unit, the air pollution control equipment and the monitoring systems. **REQUIRED**
- ☒ Attachment E204-C: *Material Safety Data Sheets* – Submit a Material Safety Data Sheet for each product stored. **REQUIRED**
- ☐ Attachment E204-D: *EPA Tanks Emissions Estimation Software Program Output* – Submit the *EPA Tanks Emissions Estimation Software Program* output data for each tank. **IF APPLICABLE**

ATTACHMENT E204-A - PROCESS FLOW DIAGRAM (U28a)

Process Flow Diagram



ATTACHMENT E204-B – MANUFACTURER INFORMATION
(U28a)



IFR DESIGN DATA

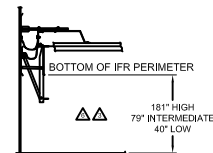
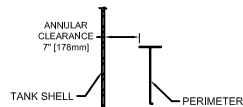
- MAIN BEAMS ARE ON 58" [1473mm] CENTERS.
- PONTOONS ARE ON 10'-0" [3048mm] CENTERS.
- ANNUAL CLEARANCE IS 7' [178mm]
- IFR IS DESIGNED FOR A SPECIFIC GRAVITY OF 0.70
- IFR IS DESIGNED FOR 500LB [227KG] LOADING
- PONTOON SADDLES REQUIRED ON ALL PONTOON
- SS18-8 AND AL6061-T6 FASTENERS

GASOLINE DISPLACEMENT DATA

SPECIFIC GRAVITY:	0.70	
IFR WEIGHT:	19264 POUNDS	[8738 KILOGRAMS]
VOLUME DISPLACED:	3298 GALLONS	[12483 LITERS]
RISE IN LIQUID LEVEL:	0.344 INCHES	[8.74 MILLIMETERS]

NOTE:

PER API 650 H.6.6.3, FOR ALUMINUM COVERS DURING HYDRO-TESTING; BECAUSE OF POSSIBLE CORROSIVE EFFECTS, CONSIDERATION SHOULD BE GIVEN TO THE QUALITY OF THE WATER USED AND THE DURATION OF THE TESTING. CONTACT ALLENTECH FOR PRECAUTIONS TO BE TAKEN PRIOR TO HYDRO-TESTING.



CUSTOMER: GULF OIL
LOCATION: NEW HAVEN, CT
TANK NO: 123
TANK SIZE: 140'-0"Ø x 56'-0" HIGH
[42.67MØ x 17.07M HIGH]
ALLENTech JOB NO: 21-0645



138'-10" [42.32M] DIAMETER
ALUMINUM INTERNAL FLOATING ROO
GENERAL ARRANGEMENT

					UPDATED FOR PDRONE		RD 11/29/21	
	RECORD DRAWINGS PER FIELD CHANGED TANK NUMBER PER CLIENT	BG 03/02/22			LAYOUT FOR CABLES WITH COLLAR, LADDER, GAUGE POLE AND LOCKER		BG 11/15/21	
	ADDED SLEEVE TO LADDER	RD 1/12/22			CHECKED BRACKETING NUTS, TOTAL OF REPAIRS, REMOVED LADDER SLEEVE		RD 9/1/21	
	ADDED SLEEVE TO COLUMN & UPDATES DRAWN OFF?	RD 12/16/21			***BAU RELEASE		RD 5/18/21	JR 5/20/21
REV	DESCRIPTION	DRAWN BY	CHECKED	REV	DESCRIPTION	DRAWN BY	CHECKED	

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ATTACHMENT E204-C - SAFETY DATA SHEETS



SAFETY DATA SHEET

Diesel Fuel

1. IDENTIFICATION

Product Identifier Diesel Fuel

Synonyms: Diesel Fuel, Motor Vehicle Diesel Fuel, Marine Gasoil (MGO), Dyed Diesel, * DieselOne®, * DieselOne® w/Platinum Plus DFX, Low Sulfur Diesel (LSD), Ultra Low Sulfur Diesel (ULSD)

Intended use of the product: Fuel

Contact: Global Companies LLC
Water Mill Center
800 South St.
Waltham, MA 02454-9161
www.globalp.com

Contact Information: EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300
COMPANY CONTACT (business hours): 800-542-0778

2. HAZARD IDENTIFICATION

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Classification (GHS-US):

Flam. Liquid	Category 3	H226
Skin Corrosion/Irritation	Category 2	H315
Aspiration Hazard	Category 1	H304
STOT SE	Category 3	H336
Carcinogenicity	Category 2	H350
Aquatic Chronic	Category 2	H411
Serious Eye Damage/ Irritation	Category 2B	H319

Labeling Elements



Signal Word (GHS-US):

Hazard Statements (GHS-US):

Danger

H226 – Flammable liquid and vapor.

H315 – Causes Skin irritation.

H304 – May be fatal if swallowed and enters airways.

H336 – May cause drowsiness or dizziness.

H350 – May cause cancer.

H411 – Toxic to aquatic life with long lasting effects.

H319 – May cause eye damage/irritation.

Precautionary Statements (GHS-US):

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P240 – Ground/bond container and receiving equipment.

P241 – Use explosion-proof electrical/ventilating/lighting equipment pursuant to applicable electrical code.
P242 – Use only non-sparking tools.
P243 – Take precautionary measures against static discharge.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 – Wash skin thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water/shower.
P308+311 - If exposed or concerned: Get medical advice/attention.
P301+310 - If swallowed: Immediately call a poison center/doctor/...
P331 - Do NOT induce vomiting.
P370+P378 – In case of fire use firefighting foam or other appropriate media for Class B fires to extinguish.
P403+235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulation.

Other information:

NFPA 704
Health: 1
Fire: 2
Reactivity: 0



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

Mixture

Name	Product Identifier (CAS#)	% (w/w)	Classification
Diesel Fuel	68476-34-6	100	Flam Liq. 3, H226; Skin Irrit. 2, H315; Aspiration 1, H304; STOT SE 3, H336; Carc.2. H350; Aquatic chronic 2, H411
Naphthalene	91-20-3	<0.1	Carc. 2, H351; Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H410

Additional Formulation Information:

Diesel Fuel consists of C9+ hydrocarbons resulting from distillation of crude oil.

Marine Gasoil typically contains less than 1,000 ppm of sulfur

Low Sulfur Diesel Fuel typically contains less than 500 ppm of sulfur

Ultra Low Sulfur Diesel Fuel typically contains less than 15 ppm of sulfur



SAFETY DATA SHEET

Diesel Fuel

4. FIRST AID MEASURES

Route	Measures
Inhalation	Remove person to fresh air. If person is not breathing, ensure an open airway and provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
Ingestion	Aspiration Hazard: DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Ingestion may cause gastrointestinal disturbances including irritation, nausea, vomiting, and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory failure, and death.
Eye Contact	In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention. In case of contact lenses, remove immediately.
Skin Contact	Remove contaminated clothing and shoes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops. Thermal burns require immediate medical attention depending on the severity and of the area of the body burned.

Most Important Symptoms

Contact with eyes and face may cause irritation. Long-term exposure may cause dermatitis (itching, irritation, pain and swelling).

Inhalation may cause irritation and significant or long term exposure could cause respiratory insufficiency and pulmonary edema.

Ingestion may cause aspiration, gastrointestinal disturbance, and CNS effects.

Immediate Medical Attention and Special Treatment

For contact with skin or eyes, immediately wash or flush contaminated eyes with gently flowing water. If possible, irrigate each eye continuously with 0.9% saline (NS). If ingested, rinse mouth. Do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

If inhaled, administer oxygen or establish a patent airway if breathing is labored. Suction if necessary. Monitor closely, anticipate seizures. Consider orotracheal or nostracheal intubation of airway control if patient is unconscious or is in severe respiratory distress.

Discard any clothing or shoes contaminated as they may be flammable.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Foam, carbon dioxide, dry chemical are most suitable

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, firefighting foam, or Halon. Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment.

LARGE FIRES: Foam, carbon dioxide, dry chemical. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Specific Hazards / Products of Combustion

Moderate fire hazard when exposed to heat or flame with a very low flash point. Product is flammable and easily ignited when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Combustion may produce smoke, carbon monoxide and other products of incomplete combustion.

Special Precautions and Protective Equipment for Firefighters

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water.



SAFETY DATA SHEET

Diesel Fuel

For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

Fighting Equipment/Instructions

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH- approved pressure-demand self-contained breathing apparatus with full face piece and protective clothing.

Refer to Section 9 for fire properties of this chemical including flash point, auto ignition temperature, and explosive limits.

6. ACCIDENTAL RELEASE MEASURES

ACTIVATE FACILITY SPCC, SPILL CONTINGENCY or EMERGENCY PLAN.

Personal Precautions

Due to high vapor density, flammable / toxic vapors may be present in low lying areas, dikes, pits, drains, or trenches. Vapors may accumulate in low lying areas and reach ignitable concentrations. Ventilate the area. Use of non-sparking tools and intrinsically safe equipment is recommended. Potential for flammable atmosphere should be monitored using a combustible gas indicator positioned downwind of the spill area. Refer to Sections 2 and 7 for further hazard warnings and handling instructions.

Use appropriate personal protective equipment to prevent eye/skin contact and absorption. Use NIOSH approved respiratory protection, if warranted, to prevent exposures above permissible limits. Refer to Section 8. Contaminated clothing should not be near sources of ignition.

Emergency Measures

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Consider wind direction. Secure all ignition sources (flame, spark, hot work, hot metal, etc.) from area. Evaluate the direction of product travel, diking sewers, etc. to confirm spill areas. Do not touch or walk-through spilled material. For large spills, isolate initial action distance downwind 1,000 ft. (300 m).

Environmental Precautions

Stop the spill to prevent environmental release if it can be done safely. Product is toxic to aquatic life. Take action to isolate environmental receptors including drains, storm sewers and natural water bodies. Keep on impervious surface if at all possible. Use water sparingly to prevent product from spreading. Foam and absorbents may be used to reduce / prevent airborne release.

Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Follow federal, state or local requirements for reporting environmental release where necessary. Refer to Section 15 for further information.

Containment and Clean-Up Methods

Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Take up with dry earth, sand or other non-combustible, inert oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container with clean, non-sparking tools for reclamation or disposal. Response and cleanup crews must be properly trained and must utilize proper protective equipment. Refer to Section 8 for appropriate protective equipment.

7. HANDLING AND STORAGE

USE ONLY AS A FUEL.

DO NOT SIPHON BY MOUTH.

Handling Precautions

Handle as a flammable liquid. Keep away from heat, sparks, and open flame. No smoking. Electrical equipment should be



SAFETY DATA SHEET

Diesel Fuel

approved for classified area. Bond and ground containers during product transfer pursuant to NFPA 70 and API RP 2003 to reduce the possibility of static-initiated fire or explosion. Follow precautions to prevent static initiated fire.

Use good personal hygiene practices. Use only with protective equipment specified in Section 8. Avoid repeated and/or prolonged skin exposure. Use only outdoors or in well ventilated areas. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API RP 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Storage

Large quantities of diesel fuel are stored in tanks or portable containers at an ambient storage temperature. Separate from incompatible chemicals (Refer to Section 10) by distance or secondary containment. Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers that are clearly labeled. Label all secondary containers that this material is transferred into with the chemical name and associated hazard(s). Empty product containers or vessels may contain flammable vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Storage tanks should have a venting system. If stored in small containers, the area should be well ventilated, away from ignition sources and protected from potential damage or vehicular traffic. Post "No Smoking" signs in product storage areas. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code" or applicable building code. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks in Flammable and Combustible Liquid Service" and API RP 2015 "Safe Entry and Cleaning of Petroleum Storage Tanks".

Incompatibles

Keep away from strong oxidizers, ignition sources and heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS #	List	Value
Diesel Fuel	68476-34-6	ACGIH TLV-TWA	100 mg/m ³ *
Naphthalene	91-20-3	ACGIH TLV-TWA OSHA PEL	10 ppm 10 ppm

*Critical effects; Skin; A3; CNS impairment.

Engineering Controls

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Intrinsically safe equipment and non-sparking tools shall be used in circumstances where concentrations may exceed lower flammable limits. Grounding and bonding shall be used to prevent accumulation and discharge of static electricity. Emergency shower and eyewash should be provided in proximity to handling areas in the event of exposure to decontaminate.

Personal Protective Equipment

Exposure	Equipment
Eye / Face	Wear appropriate chemical protective glasses or goggles or face shields to prevent skin and eye contact especially caused from splashing.
Skin	Wear appropriate personal protective clothing to prevent skin contact. Gloves constructed of nitrile, neoprene or PVC are recommended when handling this material. Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure.



SAFETY DATA SHEET

Diesel Fuel

Exposure	Equipment
Respiratory	A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection and limitations. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.
Thermal	Product is stored at ambient temperature. No thermal protection is required except for emergency operations involving actual or potential for fire. Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Clear or straw-colored liquid. May be dyed red for distribution.
Odor	Mild characteristic petroleum distillate odor.
Odor Threshold	<1 ppm
pH	Not available
Melting Point	-22 to -0.4 °F (-30 to -18 °C)
Boiling Point Range	320 to 690 °F (160 to 366 °C)
Flash Point	> 125.6 °F (52 °C) PMCC
Evaporation Rate	Slow, varies with conditions
Flammability	Flammable liquid (OSHA defined)
Flammable Limits	0.6 % - 6.5%
Vapor Pressure	0.009 psia @ 70 °F
Vapor Density	> 1 (air=1)
Specific Gravity	0.83-0.86 @ 60 °F (16 °C) (water=1)
Solubility	Insoluble in water; miscible with other petroleum solvents.
Partition Coefficient (N-octanol/water)	Log Kow range of 3.3 to >6.0
Autoignition Temperature	494 °F (257 °C)
Decomposition Temperature	When heated it emits acrid smoke and irritating vapors.
Viscosity	<3 cSt
Percent Volatiles	100

10. STABILITY AND REACTIVITY

Stability

This is a stable material that is flammable liquid (OSHA/GHS hazard category 3). Stable during transport.

Reactivity

Material is not self-reacting. Flammable concentrations may be present in air. Compound can react with oxidizing materials.



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Diesel Fuel

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Incompatibility

Keep away from strong oxidizers such as nitric and sulfuric acids.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, static electricity, welding, smoking and other ignition sources.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Toxicity (Inhalation LC50)

Diesel Fuel (68476-34-6)

LC50 Inhalation Rat >6 mg/l/4h

Acute Toxicity (Dermal LD50)

Diesel Fuel (68476-34-6)

LD50 Dermal Rabbit >5000 mg/kg

Acute Toxicity (Oral LD50)

Diesel Fuel (68476-34-6)

LD50 Oral Rabbit >5000 mg/kg

Skin Corrosion/Irritation: Prolonged and repeated contact may cause skin irritation leading to dermatitis. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: OSHA: NO, IARC: Group 3, NTP: NO, ACGIH: NOIC:A3, NIOSH: NO

IARC: Group 3 – Not classifiable as to their carcinogenicity to humans ACGIH: A3 – Confirmed animal carcinogen with unknown relevance to humans

Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.

IARC classifies whole diesel fuel exhaust particulates (byproduct of combustion of this material) carcinogenic to humans (Group 1) and NIOSH regards diesel fuel exhaust particulate as a potential occupational carcinogen.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Specific Target Organ Toxicity (Single Exposure): Inhalation exposure may cause drowsiness or dizziness by inhalation exposure.

Aspiration Hazard: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Potential Health Effects: Vapor irritating to skin, eyes, nose, and throat. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

WARNING: The burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of



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Diesel Fuel

combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

12. ECOLOGICAL INFORMATION

Toxicity:

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Data for Component: Diesel Fuel (68476-34-6)

Material is toxic to aquatic organisms based on an acute basis (LC50/EC50 >1 but ≤ 10 mg/L in the most sensitive species tested).

Material is a long-term aquatic hazard based on a chronic basis (LC50/EC50 >1 but ≤ 10 mg/L in the most sensitive species tested).

Persistence and Degradation: This material is not expected to be readily biodegradable.

Bioaccumulative Potential: Not available

Mobility in Soil: Not available

Other Adverse Effects: None known

Other Information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Consult federal, state and local waste regulations to determine appropriate disposal options. May be considered a hazardous waste if disposed. Direct solid waste (landfill) or incineration at a solid waste facility is not permissible. Do not discharge to sanitary or storm sewer. Personnel handling waste containers should follow precautions provided in this document.

Shipping containers must be DOT authorized packages. Follow licensure and regulations for transport of hazardous material and hazardous waste as applicable.

14. TRANSPORT INFORMATION

US DOT

UN Identification Number	NA1993
Proper Shipping Name	Diesel fuel
Hazard Class and Packing Group	3, PGIII
Shipping Label	Flammable Liquid
Placard / Bulk Package	Flammable liquid, 1993
Emergency Response Guidebook Guide Number	128

This product may be re-classified as a "Combustible Liquid" meeting the definition in 49 CFR 173.120 unless transported by vessel or aircraft.

Specific placard requirements must be met for shipments of this product as a Combustible Liquid by rail (See 49 CFR 172.332).

Non-bulk packages (≤ 119 gal) of Combustible Liquids in package sizes less than the product reportable quantity are not regulated as hazardous materials if the material does not meet any other hazard class.

IATA Information

UN Identification Number	UN1202
Proper Shipping Name	Diesel fuel
Hazard Class and Packing Group	3, PGIII
ICAO Label	3
Packing Instructions Cargo	310
Max Quantity Per Package Cargo	220L
Packing Instructions Passenger	309Y
Max Quantity per Package Passenger	60L



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Diesel Fuel

ICAO

UN Identification Number	UN1202
Shipping Name / Description	Diesel fuel
Hazard Class and Packing Group	3, PG III
IMDG Label	3

IMDG

UN Identification Number	UN1202
Shipping Name / Description	Diesel fuel
Hazard Class and Packing Group	3, PGIII
IMDG Label	3
EmS Number	F-E-S-E
Marine Pollutant	Yes

15. REGULATORY INFORMATION

U.S. Federal, State, and Local Regulatory Information

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state, or local regulations; consult those regulations applicable to your facility/operation.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning And Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	Yes
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Clean Water Act (Oil Spills)

Any spill or release of this product to "navigable waters" (Essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) or, if not practical, the U.S. Coast Guard with follow up to the National Response Center, as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

CERCLA Section 103 and SARA Section 304 (Release to the Environment)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts this material. This product does not contain any chemicals subject to the reporting requirements of CERCLA Section 103 or SARA 304.

SARA Section 313- Supplier Notification

This product does not contain any chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

EPA Notification (Oil Spills)

If there is a discharge of more than 1,000-gallons of oil into or upon navigable waters of the United States, or if it is the second spill event of 42 gallons or more of oil into water within a twelve (12) month period, a written report must be submitted to the Regional Administrator of the EPA within sixty days of the event.

Pennsylvania Right to Know Hazardous Substance list:

The following product components are cited in the Pennsylvania Special Hazardous Substance List, and are present at levels which require reporting.

Component	CAS	Amount
Diesel Fuel	68476-34-6	100%



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Diesel Fuel

New Jersey Right to Know Hazardous Substance list:

The following product components are cited in the New Jersey Right to Know Hazardous Substance List, and are present at levels which require reporting.

Component	CAS	Amount
Diesel Fuel	68476-34-6	100%

California Proposition 65 WARNING: This product contains chemicals known to the State of California to cause Cancer or Reproductive Toxicity.

Component	CAS	Amount
Naphthalene	91-20-3	<0.1%

U.S. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Canadian Regulatory Information (WHMIS)

Class B3 – Combustible Liquid

Class D2A – Materials causing other toxic effects. (Very Toxic)

16. OTHER INFORMATION

Version	7
Issue Date	May 22, 2023
Prior Issue Date	June 1, 2021

Description of Revisions

Add marine gasoil (MGO) to synonyms. No changes to hazard information or chemical constituents.

Abbreviations

°F	Degrees Fahrenheit (temperature)	mL	Milliliter
<	Less than	mm ²	Square millimeters
=	Equal to	mmHg	Millimeters of mercury (pressure)
>	Greater than	N/A	Not applicable
AP	Approximately	N/D	Not determined
C	Centigrade (temperature)	ppm	Parts per million
kg	Kilogram	sec	Second
L	Liter	ug	Micrograms
mg	Milligrams		

Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists	EPA	U.S. Environmental Protection Agency
AIHA	American Industrial Hygiene Association	ERPG	Emergency Response Planning Guideline
AL	Action Level	GHS	Global Harmonized System
ANSI	American National Standards Institute	HMIS	Hazardous Materials Information System
API	American Petroleum Institute	IARC	International Agency for Research On Cancer
CAS	Chemical Abstract Service	IATA	International Air Transport Association
CERCLA	Comprehensive Emergency Response, Compensation, and Liability Act	IMDG	International Maritime Dangerous Goods
DOT	U.S. Department of Transportation	Koc	Soil Organic Carbon
EC50	Ecological concentration 50%	LC50	Lethal concentration 50%
		LD50	Lethal dose 50%
		MSHA	Mine Safety and Health Administration



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NFPA	National Fire Protection Association	SPCC	Spill Prevention, Control, and Countermeasures
NIOSH	National Institute of Occupational Safety and Health	STEL	Short Term Exposure Limit (generally 15 minutes)
NOIC	Notice of Intended Change	TLV	Threshold Limit Value (ACGIH)
NTP	National Toxicology Program	TSCA	Toxic Substances Control Act
OPA	Oil Pollution Act of 1990	TWA	Time Weighted Average (8 hr.)
OSHA	U.S. Occupational Safety & Health Administration	UN	United Nations
PEL	Permissible Exposure Limit (OSHA)	UNECE	United Nations Economic Commission for Europe
RCRA	Resource Conservation and Recovery Act Reauthorization Act of 1986 Title III	WEEL	Workplace Environmental Exposure Level (AIHA)
REL	Recommended Exposure Limit (NIOSH)	WHMIS	Canadian Workplace Hazardous Materials Information System
RVP	Reid Vapor Pressure		
SARA	Superfund Amendments and		
SCBA	Self Contained Breathing Apparatus		

Disclaimer of Expressed and Implied Warranties

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

**** End of Safety Data Sheet ****



SAFETY DATA SHEET

Gasoline, Unleaded All Grades

1. IDENTIFICATION

Product Identifier Gasoline, Unleaded Conventional and Reformulated

Synonyms: 87 Octane Conventional (Oxygenated and Non-oxygenated) and Reformulated (RFG) Regular Unleaded Gasoline, 89 Octane Conventional (Oxygenated and Non-oxygenated) and Reformulated (RFG) Mid-grade Unleaded Gasoline, 91-93 Octane Conventional (Oxygenated and Non-oxygenated) and Reformulated (RFG) Premium Unleaded Gasoline, Conventional Blendstock for Oxygenate Blending (CBOB) (with and without ethanol), Premium Blendstock for Oxygenate Blending (PBOB) (with and without ethanol), Premium Conventional Blendstock for Oxygenate Blending (PCBOB) (with and without ethanol), Reformulated Blendstock for Oxygenate Blending (RBOB) (with and without ethanol), Unleaded Gasoline, Unleaded Gasoline with Ethanol

Intended use of the product: Fuel

Contact: Global Companies LLC
Water Mill Center
800 South St.
Waltham, MA 02454-9161
www.globalp.com

Contact Information: EMERGENCY TELEPHONE NUMBER (24 hrs): CHEMTREC (800) 424-9300
COMPANY CONTACT (business hours): 800-542-0778

2. HAZARD IDENTIFICATION

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Classification (GHS-US):

Flammable Liquid	Category 2	H225
Acute Toxicity	Category 4	H332
Skin Corrosion/Irritation	Category 2	H315
Carcinogenicity	Category 1A	H350
Germ Cell Mutagenicity	Category 1B	H340
Reproductive Toxicity	Category 2	H361d
STOT RE	Category 1	H372
Aspiration Hazard	Category 1	H304

Labeling Elements



Signal Word (GHS-US):

Hazard Statements (GHS-US):

Danger

H225 – Highly flammable liquid and vapor.
H304 - May be fatal if swallowed and enters airways.
H332 - Harmful if inhaled.
H315 - Causes skin irritation.
H350 – May cause cancer.
H340 – May cause genetic defects.
H361 – Suspected of damaging fertility or the unborn child.
H372 – Causes damage to organs through prolonged or repeated exposure.



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Gasoline, Unleaded All Grades

Precautionary Statements (GHS-US):

P201 - Obtain special instructions before use.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment pursuant to applicable electrical code.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water/shower.
P308+311 - If exposed or concerned: Get medical advice/attention.
P301+310 - If swallowed: Immediately call a poison center/doctor/...
P331 - Do NOT induce vomiting.
P370+P378 - In case of fire use firefighting foam or other appropriate media for Class B fires to extinguish.
P403 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

Other information:

NFPA

Health: 1

Fire: 3

Reactivity: 0



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

Name	Product Identifier (CAS#)	% (w/w)	Classification
Gasoline	86290-81-5	100	Carc 1B, H350; Muta 1B, H340; Asp 1, H304
Benzene	71-43-2	0.1 to 4.9 (0.1 to 1.3*)	Flam liq 2, H225; Carc 1A, H350; Muta 1B H340; STOT RE 1, H372; Asp 1, H304; Eye Irrit 2, H319; Skin Irrit 2, H315
Ethyl Alcohol (Ethanol)	64-17-5	0-10	Flam Liq 2 H225
Toluene	108-88-3	0-15	Flam liq 2, H225; Repro 2, H361d; STOT RE 2, H373; Asp 1, H304; Skin Irrit 2, H315; STOT SE 3, H336
Xylene, mixed isomers	1330-20-7	0-15	Flam Liq 3, H226; Acute Tox 4, H332; Acute Tox 4, H312; Skin Irrit 2, H315
Ethyl Benzene	100-41-4	< 4	Flam Liq 2, H225; Acute Tox 4, H332; STOT RE 2, H373; Asp 1, H304
1,2,4- Trimethylbenzene	95-63-6	<5	Flam Liq 3, H226; Acute Tox 4, H332; Acute Tox 4, H312; Skin Irrit 2, H315; Eye Irrit 2, H319; STOT SE 3, H335; Acute Aquatic 2, H411

*for reformulated gasoline



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Gasoline, Unleaded All Grades

Additional Formulation Information

A complex blend of petroleum-derived normal and branched-chain alkane, cycloalkane, alkene, and aromatic hydrocarbons. Butane is often added to increase volatility, especially in winter. May contain antioxidant and multifunctional additives. Oxygenated and reformulated gasoline will have legally-required amounts of oxygenates (Ethanol) to increase octane levels.

RBOB and PBOB are gasoline base stocks and do not contain any Oxygenates (Ethanol).

*Also see Section 15 for list of SARA Section 313 toxic chemicals.

4. FIRST AID MEASURES

Route	Measures
Inhalation	Remove person to fresh air. If person is not breathing, ensure an open airway and provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
Ingestion	Aspiration Hazard: DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.
Eye Contact	If present, remove contact lenses. In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.
Skin Contact	Remove contaminated clothing and shoes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops.
Absorption	As with skin contact, remove contaminated clothing and flush with copious amounts of water. Flush affected area for at least 15 minutes to minimize potential for further absorption. Seek medical attention if significant portions of skin have been exposed.

Most Important Symptoms

Contact may cause eye, skin and mucous membrane irritation. Harmful if absorbed through the skin. Avoid prolonged breathing of vapors or mists. Inhalation may cause irritation, anesthetic effects (dizziness, nausea, headache, intoxication), and respiratory system effects.

Long-term exposure may cause effects to specific organs, such as to the liver, kidneys, blood, nervous system, and skin. Contains benzene, which can cause blood disease, including anemia and leukemia.

Immediate Medical Attention and Special Treatment

If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

Application of epinephrine may cause cardiac arrhythmia in persons exposed to large quantities of hydrocarbon vapor or due to skin absorption. Observe for development of symptoms leading to cardiac arrhythmia.

Urine samples may be obtained to determine biological effects of benzene exposure and should be collected in accordance with the medical surveillance criteria in 29 CFR 1910.1028.

Contaminated clothing, including shoes may present a fire hazard and should be discarded

Medical Conditions Aggravated by Exposure

Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash). Chronic respiratory disease, liver or kidney dysfunction, or pre-existing central nervous system disorders may be aggravated by exposure.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, firefighting foam, or Halon.

LARGE FIRES: Water spray, fog or firefighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

During certain times of the year and/or in certain geographical locations, gasoline may contain additional additives. Firefighting foam suitable for polar solvents is recommended for fuel with greater than 10% oxygenate concentration - refer to NFPA 11 'Standard for Low-, Medium-, and High-Expansion Foam' -1994 Edition.



SAFETY DATA SHEET

Gasoline, Unleaded All Grades

Specific Hazards / Products of Combustion

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Combustion may produce smoke, carbon monoxide and other products of incomplete combustion.

Special Precautions and Protective Equipment for Firefighters

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full face piece and full protective clothing.

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

See Section 9 for fire properties of this chemical including flash point, autoignition temperature, and explosive limits

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

ACTIVATE FACILITY SPCC, SPILL CONTINGENCY or EMERGENCY PLAN.

Depending on the size of the spill, downwind receptors may need to be notified.

Evacuate nonessential personnel and remove or secure all ignition sources (flame, spark, hot work, hot metal, etc.). Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Do not touch or walk-through spilled material.

Highly flammable material, even small spills may pose a fire danger for emergency responders. Due to high vapor density, flammable / toxic vapors may be present in low lying areas, dikes, pits, drains, or trenches. Ventilate the area. Use of non-sparking tools and intrinsically safe equipment is recommended. Potential for flammable atmosphere should be monitored using a combustible gas indicator positioned down wind of the spill area. See Sections 2 and 7 for further hazard warnings and handling instructions.

Use appropriate personal protective equipment to prevent eye/skin contact and absorption. Use NIOSH approved respiratory protection, if warranted, to prevent exposures above permissible limits (see Section 8). Contaminated clothing should not be near sources of ignition.

Environmental Precautions

Stop the spill to prevent environmental release if it can be done safely. Product is toxic to aquatic life. Take action to isolate environmental receptors including drains, storm sewers and natural water bodies. Keep on impervious surface if at all possible. Use water sparingly to prevent product from spreading. Foam and absorbents may be used to reduce / prevent airborne release.

Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Follow federal, state or local requirements for reporting environmental release where necessary (see Section 15 for further information)

Containment and Clean-Up Methods

Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.



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Gasoline, Unleaded All Grades

Take up with dry earth, sand or other non-combustible, inert oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container with clean, non-sparking tools for reclamation or disposal. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

7. HANDLING AND STORAGE

Handling Precautions

USE ONLY AS A MOTOR FUEL
DO NOT SIPHON BY MOUTH

Handle as a flammable liquid. Keep away from heat, sparks, and open flame. No smoking. Electrical equipment should be approved for classified area. Bond and ground containers during product transfer pursuant to NFPA 70 and API RP 2003 to reduce the possibility of static-initiated fire or explosion. Follow precautions to prevent static initiated fire.

Use good personal hygiene practices. Use only with protective equipment specified in Section 8. Avoid repeated and/or prolonged skin exposure. Use only outdoors or in well ventilated areas. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

Vapors are heavier than air and can accumulate in low lying areas (e.g., tanks, pits, vaults, dikes, drains, etc.) Follow specific procedures for confined space entry in areas where product may be present pursuant to OSHA requirements in 29 CFR 1910.146. Atmospheric testing using a combustible gas indicator may be necessary in confined areas where product may be present.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents.

Storage

Keep away from flame, sparks, excessive temperatures and open flame. Store in approved tanks or containers. Keep containers closed and clearly labeled. Label all secondary containers that this material is transferred into with the chemical name and associated hazard(s). Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Separate from incompatible materials (see Section 10) by distance or secondary containment.

Store in a well-ventilated area. Protect containers from damage and vehicular traffic. Post "No Smoking" signs in product storage areas. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS #	List	Value
Gasoline	86290-81-5	ACGIH TLV-TWA ACGIH STEL	300 ppm 500 ppm
Benzene	71-43-2	ACGIH TLV-TWA ACGIH STEL OSHA AL OSHA TWA OSHA STEL	0.5 ppm* 2.5 ppm* 0.5 ppm 1 ppm 5 ppm
Ethyl Alcohol (Ethanol)	64-17-5	ACGIH STEL OSHA PEL	1000 ppm 1000 ppm



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Gasoline, Unleaded All Grades

Component	CAS #	List	Value
Toluene	108-88-3	ACGIH TLV-TWA OSHA TWA OSHA Ceiling limit OSHA Ceiling limit Peak	20 ppm 200 ppm 300 ppm 500 ppm (10 min)
Xylene, mixed isomers	1330-20-7	ACGIH TLV-TWA OSHA PEL	20 ppm 100 ppm
Ethyl Benzene	100-41-4	ACGIH TLV-TWA OSHA PEL	20 ppm 100 ppm
1,2,4- Trimethylbenzene	95-63-6	ACGIH TLV-TWA	10 ppm

*Skin designation indicates the chemical is skin absorbable

Engineering Controls

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Intrinsically safe equipment and non-sparking tools shall be used in circumstances where concentrations may exceed lower flammable limits. Grounding and bonding shall be used to prevent accumulation and discharge of static electricity.

Emergency shower and eyewash should be provided in proximity to handling areas in the event of exposure to decontaminate.

Personal Protective Equipment

Exposure	Equipment
Eye / Face	Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.
Skin	Gloves constructed of nitrile or neoprene are recommended when handling this material. If contact with the body is expected, chemical protective clothing such as of E.I. DuPont Tychem®, Barricade®, or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.
Respiratory	A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection and limitations. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection. Specific requirements under the OSHA Benzene standard may apply if concentrations exceed the action level or permissible limits. Consult 29 CFR 1910.1028 for further information.
Thermal	Product is stored at ambient temperature. No thermal protection is required except for emergency operations involving actual or potential for fire.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value	Comments
Appearance	A clear, water-like liquid	
Odor	A strong, characteristic aromatic hydrocarbon odor. Oxygenated gasoline with Ethanol may have a alcohol-like odor and is detectable at a lower concentration than non-oxygenated gasoline.	



SAFETY DATA SHEET

Gasoline, Unleaded All Grades

Property	Value			Comments
Odor Threshold	Parameter	Odor Detection	Odor Recognition	
	Non-oxygenated gasoline	0.5-0.6 ppm	0.8-1.1 ppm	
	Gasoline with 10% Ethanol	0.2-0.3 ppm	0.4-0.7 ppm	
pH	Not available			
Melting / Freeze Point	- 150 °F			
Boiling Point And Range	95-437 °F (35-225 C)			
Flash Point	-45 °F (-43 C)			
Evaporation Rate	10-11			(n-butyl acetate = 1)
Flammability	Flammable liquid			
Flammability Limits	1.4–7.6%			(est)
Vapor Pressure	7-15 RVP @100 °F (38 C) 275-475mm Hg @ 68 °F (20 C)			
Vapor Density	3-4			
Specific Gravity	0.76			(water =1)
Solubility	Non-oxygenated gasoline-negligible (<0.1% @77°F). Gasoline with 10% Ethanol has greater solubility than other oxygenates			
Partition Coefficient	2-7			as Log P
Autoignition Temperature	highly variable; >530 °F (>280 C)			
Decomposition Temperature	Evaporation or ignition likely before decomposition will occur			
Viscosity	0.64–0.88 mm ² /sec			
Percent Volatiles	100%			

10. STABILITY AND REACTIVITY

Reactivity

Material is not self reacting, flammable concentrations may be present in air.

Stability

Normally stable unless mixed with incompatibles or fire in presence of an ignition source. Material is flammable liquid.

Reactions / Polymerization

Stable. Hazardous polymerization will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources

Incompatible Materials

Keep away from strong acids and oxidizers.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.



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Gasoline, Unleaded All Grades

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Toxicity (Inhalation LC50)

Gasoline (86290-81-5)	
LC50 Inhalation Human	2,000 ppm/1 hr
Benzene (71-43-2)	
LC50 Inhalation Rat	10,000 ppm/7 hr
Ethanol (64-17-5)	
LC50 Inhalation Rat	>20,000 ppm/10 hr
Toluene (108-88-3)	
LC50 Inhalation Mouse	400 ppm/4 hr
1,2,4 Trimethylbenzene (95-63-6)	
LC50 Inhalation Mouse	2,000 ppm/48 hr
Xylene (1330-20-7)	
LC50 Inhalation Rat	6,350 ppm/4 hr

Acute Toxicity (Oral LC50)

Gasoline (86290-81-5)	
LC50 Oral Rat	14,063 mg/l/4h
Benzene (71-43-2)	
LC50 Oral Rat	3306 mg/kg
Ethanol (64-17-5)	
LC50 Oral Rat	7060 mg/kg
Toluene (108-88-3)	
LC50 Oral Rat	2600 mg/kg
1,2,4 Trimethylbenzene (95-63-6)	
LC50 Oral Rat	3550 mg/kg
Xylene (1330-20-7)	
LC50 Oral Rat	>3500 mg/kg
Ethylbenzene (100-41-4)	
LC50 Oral Rat	3500 mg/kg

Acute Toxicity (Dermal LC50)

Gasoline (86290-81-5)	
LD50 Dermal Rabbit	>5 mL/kg
Benzene (71-43-2)	
LD50 Dermal Rabbit	>8260 mg/kg
Toluene (108-88-3)	
LC50 Dermal Rabbit	12,200 mg/kg
1,2,4 Trimethylbenzene (95-63-6)	
LC50 Dermal Rabbit	>3160 mg/kg
Xylene (1330-20-7)	
LC50 Dermal Rabbit	>43 g/kg
Ethylbenzene (100-41-4)	
LC50 Dermal Rabbit	17,800 mg/kg

Skin Corrosion/Irritation: Causes skin irritation.

Serious Eye Damage/Irritation: Not classified



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Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: May cause genetic defects.

Carcinogenicity: OSHA: NO IARC: YES - 2B NTP: NO ACGIH: YES (A3)

IARC has determined that gasoline and byproducts of combustion are possibly carcinogenic in humans. Inhalation exposure to completely vaporized unleaded gasoline caused kidney cancers in male rats and liver tumors in female mice. EPA has determined that the male kidney tumors are species-specific and are irrelevant for human health risk assessment. The significance of the tumors seen in female mice is not known. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with effects to the central and peripheral nervous systems, liver, and kidneys. The significance of these animal models to predict similar human response to gasoline is uncertain.

This product contains benzene. Human health studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-forming system (particularly bone marrow), and serious blood disorders such as aplastic anemia and leukemia. The NTP, ARC, OSHA and ACGIH list benzene as a human carcinogen.

Reproductive Toxicity: May damage/Suspected of damaging fertility or the unborn child.

Teratogenicity: Not available

Ototoxicity: Excessive exposure to ethyl benzene may interfere with cochlear function inducing hearing loss.

Specific Target Organ Toxicity (Repeated Exposure): Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

Specific Target Organ Toxicity (Single Exposure): Single over-exposure likely to cause central nervous system effects (dizziness and drowsiness), excessive exposure could cause paralysis or cardiac arrhythmia.

Aspiration Hazard: This chemical is considered to be an aspiration hazard. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

Potential Health Effects: Vapor irritating to eyes, nose, and throat. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur. Inhalation at high concentrations in confined spaces with less than 16% oxygen needed to sustain life, skin and /or eye contact (liquid).

Chronic effects: Human inhalation (chronic) >500 ppm (approx. 1.8 mg/L)/ day. Effects: May cause vomiting, diarrhea, insomnia, headache dizziness, anemia, muscle & neurological symptoms.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

12. ECOLOGICAL INFORMATION

Toxicity

Material is toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

EC50 Daphnia

30 mmol/m3 (Exposure time: 48 h - Species: Daphnia magna)

LC 50 Fish

7.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas)

Persistence and Degradation: Not available

Bioaccumulative Potential: Not available

Mobility in Soil: Not available

Other Adverse Effects: None known

Other Information: Avoid release to the environment.



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13. DISPOSAL CONSIDERATIONS

Consult federal, state and local waste regulations to determine appropriate disposal options. May be considered a hazardous waste if disposed. Direct solid waste (landfill) or incineration at a solid waste facility is not permissible. Do not discharge to sanitary or storm sewer. Personnel handling waste containers should follow precautions provided in this document.

Shipping containers must be DOT authorized packages. Follow licensure and regulations for transport of hazardous material and hazardous waste as applicable.

14. TRANSPORT INFORMATION

US DOT

UN Identification Number	UN 1203
Proper Shipping Name	Gasoline
Hazard Class and Packing Group	3, PG II
Shipping Label	Flammable Liquid
Placard / Bulk Package	Flammable liquid, 1203
Emergency Response Guidebook Guide Number	128

IATA Cargo

UN Identification Number	UN 1203
Shipping Name / Description	Gasoline
Hazard Class and Packing Group	3, PG II
ICAO Label	3
Packing Instructions Cargo	364, Y341
Max Quantity Per Package Cargo	60 L

IATA Passenger

UN Identification Number	UN 1203
Shipping Name / Description	Gasoline
Hazard Class and Packing Group	3, PG II
ICAO Label	3
Packing Instructions Passenger	353, Y341
Max Quantity Per Package	5 L

IMDG

UN Identification Number	UN 1203
Shipping Name / Description	Gasoline
Hazard Class and Packing Group	3, PG II
IMDG Label	3
EmS Number	F-E S-E
Marine Pollutant	No

15. REGULATORY INFORMATION

U.S. Federal, State, and Local Regulatory Information

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state, or local regulations; consult those regulations applicable to your facility/operation.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	Yes
Reactive Hazard	No
Sudden Release of Pressure Hazard	No



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Clean Water Act (Oil Spills)

Any spill or release of this product to "navigable waters" (essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) or, if not practical, the U.S. Coast Guard with follow-up to the National Response Center, as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

CERCLA Section 103 and SARA Section 304 (Release to the Environment)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts crude oil, refined, and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 as well as the Clean Water Act if the spill occurs on navigable waters) may still apply.

SARA Section 313- Supplier Notification

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

- Benzene (71-43-2)
- Benzene (71-43-2) for reformulated gasoline
- Ethyl benzene (100-41-4)
- n-Hexane (110-54-3)
- Toluene (108-88-3)
- 1,2,4- Trimethylbenzene (95-63-6)
- Xylene, mixed isomers (1330-20-7)

Information on each ingredient's concentration can be found in Section 3

Information on each ingredient's exposure limits can be found in Section 8

EPA Notification (Oil Spills)

If there is a discharge of more than 1,000-gallons of oil into or upon navigable waters of the United States, or if it is the second spill event of 42 gallons or more of oil into water within a twelve (12) month period, a written report must be submitted to the Regional Administrator of the EPA within sixty days of the event.

Pennsylvania Right to Know Hazardous Substance list

The following product components are cited in the Pennsylvania Special Hazardous Substance List and are present at levels which require reporting.

Component	CAS	Amount
Benzene	71-43-2	0.1-4.9%
Xylene	1330-20-7	0-15%
Toluene	108-88-3	0-15%
1,2,4-Trimethylbenzene	95-63-6	<5%
Ethyl Alcohol	64-17-5	0-10%
Ethyl Benzene	100-41-4	<4%

New Jersey Right to Know Hazardous Substance list

The following product components are cited in the New Jersey Right to Know Hazardous Substance List, and are present at levels which require reporting.

Component	CAS	Amount
Gasoline	86290-81-5	100%
Benzene	71-43-2	0.1-4.9%
Xylene	1330-20-7	0-15%
Toluene	108-88-3	0-15%
1,2,4-Trimethylbenzene	95-63-6	<5%
Ethyl Alcohol	64-17-5	0-10%
Ethyl Benzene	100-41-4	<4%

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause Cancer or Reproductive Toxicity.

Component	CAS	Amount
Benzene	71-43-2	0.1-4.9%
Toluene	108-88-3	0-15%
Ethyl Alcohol	64-17-5	0-10%



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Ethyl Benzene 100-41-4 <4%

U.S. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Canadian Regulatory Information (WHMIS)

Class B, Division 2 (Flammable Liquid)

Class D, Division 2A (Very toxic by other means) and Class D, Division 2B (Toxic by other means)

16. OTHER INFORMATION

Version 8
Issue Date May 22, 2023
Prior Issue Date September 19, 2022

Description of Revisions

Revised to incorporate all grades and formulations of unleaded gasoline provided by Global including blendstock and finished product.

Abbreviations

°F	Degrees Fahrenheit (temperature)	mg	Milligrams
<	Less than	mL	Milliliter
=	Equal to	mm ²	Square millimeters
>	Greater than	mmHg	Millimeters of mercury (pressure)
AP	Approximately	ppm	Parts per million
C	Centigrade (temperature)	sec	Second
kg	Kilogram	ug	Micrograms
L	Liter		

Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists	NFPA	National Fire Protection Association
AIHA	American Industrial Hygiene Association	NIOSH	National Institute of Occupational Safety and Health
AL	Action Level	NOIC	Notice of Intended Change
ANSI	American National Standards Institute	NTP	National Toxicology Program
API	American Petroleum Institute	OPA	Oil Pollution Act of 1990
CAS	Chemical Abstract Service	OSHA	U.S. Occupational Safety & Health Administration
CERCLA	Comprehensive Emergency Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit (OSHA)
DOT	U.S. Department of Transportation	RCRA	Resource Conservation and Recovery Act Reauthorization Act of 1986 Title III
EC50	Ecological concentration 50%	REL	Recommended Exposure Limit (NIOSH)
EPA	U.S. Environmental Protection Agency	RVP	Reid Vapor Pressure
ERPG	Emergency Response Planning Guideline	SARA	Superfund Amendments and
GHS	Global Harmonized System	SCBA	Self Contained Breathing Apparatus
HMIS	Hazardous Materials Information System	SPCC	Spill Prevention, Control, and Countermeasures
IARC	International Agency for Research On Cancer	STEL	Short-Term Exposure Limit (generally 15 minutes)
IATA	International Air Transport Association	TLV	Threshold Limit Value (ACGIH)
IMDG	International Maritime Dangerous Goods	TSCA	Toxic Substances Control Act
Koc	Soil Organic Carbon	TWA	Time Weighted Average (8 hr.)
LC50	Lethal concentration 50%		
LD50	Lethal dose 50%		
MSHA	Mine Safety and Health Administration		



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UN United Nations
UNECE United Nations Economic Commission for
Europe

WEEL Workplace Environmental Exposure Level
(AIHA)
WHMIS Canadian Workplace Hazardous Materials
Information System

Disclaimer of Expressed and Implied Warranties

Information presented herein has been compiled from sources considered to be dependable and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

**** End of Safety Data Sheet ****



SAFETY DATA SHEET

No. 2 Fuel Oil

1. IDENTIFICATION

Product Identifier No. 2 Fuel Oil

Synonyms: No. 2 Heating Oil, #2 Fuel Oil, Heating Oil Plus™, Low Sulfur Heating Oil (LSHO), Ultra Low Sulfur Heating Oil (ULSHO)

Intended use of the product: Fuel

Contact: Global Companies LLC
Water Mill Center
800 South St.
Waltham, MA 02454-9161
www.globalp.com

Contact Information: EMERGENCY TELEPHONE NUMBER (24 hrs.): CHEMTREC (800) 424-9300
COMPANY CONTACT (business hours): 800-542-0778

2. HAZARD IDENTIFICATION

According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Classification (GHS-US):

Flam. Liquid	Category 3	H226
Skin Corrosion/Irritation	Category 2	H315
Aspiration Hazard	Category 1	H304
Acute toxicity – Inhalation	Category 4	H332
STOT SE	Category 3	H336
Carcinogenicity	Category 2	H350
Aquatic Chronic	Category 2	H411
Eye damage/Irritation	Category 2	H319

Labeling Elements



Signal Word (GHS-US):

Hazard Statements (GHS-US):

Danger

H226 – Flammable liquid and vapor.
H315 – Causes Skin irritation.
H304 – May be fatal if swallowed and enters airways.
H332 – Harmful if inhaled.
H336 – May cause drowsiness or dizziness.
H350 – May cause cancer.
H411 – Toxic to aquatic life with long lasting effects.
H319 – May cause eye damage/irritation.

Precautionary Statements (GHS-US):

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 – Ground/bond container and receiving equipment.
P241 – Use explosion-proof electrical/ventilating/lighting equipment pursuant to applicable electrical code.



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P242 – Use only non-sparking tools.
P243 – Take precautionary measures against static discharge.
P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
P264 – Wash skin thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water/shower.
P308+311 - If exposed or concerned: Get medical advice/attention.
P301+310 - If swallowed: Immediately call a poison center/doctor/...
P331 - Do NOT induce vomiting.
P370+P378 – In case of fire use firefighting foam or other appropriate media for Class B fires to extinguish.
P403+235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulation.

Other information:

NFPA 704
Health: 1
Fire: 2
Reactivity: 0



3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition Information

Mixture

Name	Product Identifier (CAS#)	% (w/w)	Classification
No. 2 Fuel Oil	68476-30-2	95-100	Flam Liq. 3, H226; Skin Irrit. 2, H315; Aspiration 1, H304; STOT SE 3, H336; Carc.2. H350; Aquatic chronic 2, H411
Methyl Esters	N/A	0-5	N/A
Naphthalene	91-20-3	< 0.1	Carc. 2, H351; Acute Tox. 4, H302; Aquatic Acute 1, H400; Aquatic Chronic 1, H411

Additional Formulation Information:

No. 2 Fuel Oil consists of C9+ hydrocarbons resulting from distillation of crude oil.

Low Sulfur Heating Oil typically contains less than 500 ppm of sulfur

Ultra Low Sulfur Heating Oil typically contains less than 15 ppm of sulfur



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No. 2 Fuel Oil

4. FIRST AID MEASURES

Route	Measures
Inhalation	Remove person to fresh air. If person is not breathing, ensure an open airway and provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.
Ingestion	Aspiration Hazard: DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Ingestion may cause gastrointestinal disturbances including irritation, nausea, vomiting, and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory failure, and death.
Eye Contact	In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention. In case of contact lenses, remove immediately.
Skin Contact	Remove contaminated clothing and shoes. Wash contaminated areas thoroughly with soap and water or waterless hand cleanser. Obtain medical attention if irritation or redness develops. Thermal burns require immediate medical attention depending on the severity and of the area of the body burned.

Most Important Symptoms

Contact with eyes and face may cause irritation. Long-term exposure may cause dermatitis (itching, irritation, pain and swelling).

Inhalation may cause irritation and significant or long term exposure could cause respiratory insufficiency and pulmonary edema.

Ingestion may cause aspiration, gastrointestinal disturbance, and CNS effects.

Immediate Medical Attention and Special Treatment

For contact with skin or eyes, immediately wash or flush contaminated eyes with gently flowing water. If possible, irrigate each eye continuously with 0.9% saline (NS). If ingested, rinse mouth. Do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

If inhaled, administer oxygen or establish a patent airway if breathing is labored. Suction if necessary. Monitor closely, anticipate seizures. Consider orotracheal or nostracheal intubation of airway control if patient is unconscious or is in severe respiratory distress.

Discard any clothing or shoes contaminated as they may be flammable.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Foam, carbon dioxide, dry chemical are most suitable

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, firefighting foam, or Halon. Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other firefighting equipment.

LARGE FIRES: Foam, carbon dioxide, dry chemical. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Specific Hazards / Products of Combustion

Moderate fire hazard when exposed to heat or flame with a very low flash point. Product is flammable and easily ignited when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Combustion may produce smoke, carbon monoxide and other products of incomplete combustion.

Special Precautions and Protective Equipment for Firefighters

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water.



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For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied firefighting foam.

Fighting Equipment/Instructions

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH- approved pressure-demand self-contained breathing apparatus with full face piece and protective clothing.

Refer to Section 9 for fire properties of this chemical including flash point, auto ignition temperature, and explosive limits.

6. ACCIDENTAL RELEASE MEASURES

ACTIVATE FACILITY SPCC, SPILL CONTINGENCY or EMERGENCY PLAN.

Personal Precautions

Due to high vapor density, flammable / toxic vapors may be present in low lying areas, dikes, pits, drains, or trenches. Vapors may accumulate in low lying areas and reach ignitable concentrations. Ventilate the area. Use of non-sparking tools and intrinsically safe equipment is recommended. Potential for flammable atmosphere should be monitored using a combustible gas indicator positioned downwind of the spill area. Refer to Sections 2 and 7 for further hazard warnings and handling instructions.

Use appropriate personal protective equipment to prevent eye/skin contact and absorption. Use NIOSH approved respiratory protection, if warranted, to prevent exposures above permissible limits. Refer to Section 8. Contaminated clothing should not be near sources of ignition.

Emergency Measures

As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Consider wind direction. Secure all ignition sources (flame, spark, hot work, hot metal, etc.) from area. Evaluate the direction of product travel, diking sewers, etc. to confirm spill areas. Do not touch or walk-through spilled material. For large spills, isolate initial action distance downwind 1,000 ft. (300 m).

Environmental Precautions

Stop the spill to prevent environmental release if it can be done safely. Product is toxic to aquatic life. Take action to isolate environmental receptors including drains, storm sewers and natural water bodies. Keep on impervious surface if at all possible. Use water sparingly to prevent product from spreading. Foam and absorbents may be used to reduce / prevent airborne release.

Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Follow federal, state or local requirements for reporting environmental release where necessary. Refer to Section 15 for further information.

Containment and Clean-Up Methods

Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of firefighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Take up with dry earth, sand or other non-combustible, inert oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container with clean, non-sparking tools for reclamation or disposal. Response and cleanup crews must be properly trained and must utilize proper protective equipment. Refer to Section 8 for appropriate protective equipment.

7. HANDLING AND STORAGE

USE ONLY AS A FUEL.

DO NOT SIPHON BY MOUTH.

Handling Precautions

Handle as a flammable liquid. Keep away from heat, sparks, and open flame. No smoking. Electrical equipment should be approved for classified area. Bond and ground containers during product transfer pursuant to NFPA 70 and API RP 2003 to reduce the possibility of static-initiated fire or explosion. Follow precautions to prevent static initiated fire.



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Use good personal hygiene practices. Use only with protective equipment specified in Section 8. Avoid repeated and/or prolonged skin exposure. Use only outdoors or in well ventilated areas. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves. Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API RP 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Storage

Large quantities of fuel oil are stored in tanks or portable containers at an ambient storage temperature. Separate from incompatible chemicals (Refer to Section 10) by distance or secondary containment. Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers that are clearly labeled. Label all secondary containers that this material is transferred into with the chemical name and associated hazard(s). Empty product containers or vessels may contain flammable vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Storage tanks should have a venting system. If stored in small containers, the area should be well ventilated, away from ignition sources and protected from potential damage or vehicular traffic. Post "No Smoking" signs in product storage areas. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code" or applicable building code. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks in Flammable and Combustible Liquid Service" and API RP 2015 "Safe Entry and Cleaning of Petroleum Storage Tanks".

Incompatibles

Keep away from strong oxidizers, ignition sources and heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits

Component	CAS #	List	Value
No. 2 Fuel Oil	68476-30-2	ACGIH TLV-TWA	100 mg/m ³ *
Naphthalene	91-20-3	ACGIH TLV-TWA OSHA PEL	10 ppm 10 ppm

*Critical effects; Skin; A3; CNS impairment.

Engineering Controls

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces. Intrinsically safe equipment and non-sparking tools shall be used in circumstances where concentrations may exceed lower flammable limits. Grounding and bonding shall be used to prevent accumulation and discharge of static electricity. Emergency shower and eyewash should be provided in proximity to handling areas in the event of exposure to decontaminate.

Personal Protective Equipment

Exposure	Equipment
Eye / Face	Wear appropriate chemical protective glasses or goggles or face shields to prevent skin and eye contact especially caused from splashing.
Skin	Wear appropriate personal protective clothing to prevent skin contact. Gloves constructed of nitrile, neoprene or PVC are recommended when handling this material. Chemical protective clothing such as E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure.



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No. 2 Fuel Oil

Exposure	Equipment
Respiratory	A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, ANSI Z88.2-1992, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection and limitations. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.
Thermal	Product is stored at ambient temperature. No thermal protection is required except for emergency operations involving actual or potential for fire. Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Clear or straw-colored liquid dyed red for distribution
Odor	Mild petroleum distillate odor.
Odor Threshold	<1 ppm
pH	Not available
Melting Point	-15 °F (-26 °C)
Boiling Point Range	320 to 690 °F (160 to 366 °C)
Flash Point	>125.6 °F (52 °C) PMCC
Evaporation Rate	Slow, varies with conditions
Flammability	Flammable liquid
Flammable Limits	0.6 % - 7.5%
Vapor Pressure	0.009 psia @ 70 °F
Vapor Density	>1 (air=1)
Specific Gravity	0.81-0.88 @ 60 °F (16 °C) (water=1)
Solubility	Insoluble in water; miscible with other petroleum solvents.
Partition Coefficient (N-octanol/water)	Log Kow range of 3.3 to >6.0
Autoignition Temperature	494 °F (257 °C)
Decomposition Temperature	When heated it emits acrid smoke and irritating vapors.
Viscosity	<3 cSt
Percent Volatiles	95-100

10. STABILITY AND REACTIVITY

Stability

This is a stable material that is flammable liquid (OSHA/GHS hazard category 3). Stable during transport.

Reactivity

Material is not self-reacting. Flammable concentrations may be present in air. Compound can react with oxidizing materials.



SAFETY DATA SHEET

No. 2 Fuel Oil

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Incompatibility

Keep away from strong oxidizers such as nitric and sulfuric acids.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, static electricity, welding, smoking and other ignition sources.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute Toxicity (Inhalation LC50)

No. 2 Fuel Oil (68476-30-2)
LC50 Inhalation Rat >4.6 mg/l/4h

Acute Toxicity (Dermal LD50)

No. 2 Fuel Oil (68476-30-2)
LD50 Dermal Rabbit >2000 mg/kg

Acute Toxicity (Oral LD50)

No. 2 Fuel Oil (68476-30-2)
LD50 Oral Rat >12000 mg/kg

Acute Toxicity (Oral LD50)

Methyl Esters
LD50 Oral Rat >14400 mg/kg

Skin Corrosion/Irritation: Prolonged and repeated contact may cause skin irritation leading to dermatitis. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

Serious Eye Damage/Irritation: Causes serious eye irritation.

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: OSHA: NO, IARC: Group 3, NTP: NO, ACGIH: NOIC:A3, NIOSH: NO

IARC: Group 3 – Not classifiable as to their carcinogenicity to humans ACGIH: A3 – Confirmed animal carcinogen with unknown relevance to humans

Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.

This product is similar to Diesel Fuel. IARC classifies whole diesel fuel exhaust particulates (byproduct of combustion of this material) carcinogenic to humans (Group 1) and NIOSH regards diesel fuel exhaust particulate as a potential occupational carcinogen.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Specific Target Organ Toxicity (Single Exposure): Inhalation exposure may cause drowsiness or dizziness by inhalation exposure.

Aspiration Hazard: The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.



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No. 2 Fuel Oil

Potential Health Effects: Vapor irritating to skin, eyes, nose, and throat. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

WARNING: The burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

12. ECOLOGICAL INFORMATION

Toxicity

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

Data for Component: No. 2 Fuel Oil (68476-30-2)

Material is toxic to aquatic organisms based on an acute basis (LC50/EC50 >1 but $\leq$ 10 mg/L in the most sensitive species tested).

Material is a long-term aquatic hazard based on a chronic basis (LC50/EC50 >1 but $\leq$ 10 mg/L in the most sensitive species tested).

Persistence and Degradation: This material is not expected to be readily biodegradable.

Bioaccumulative Potential: Not available

Mobility in Soil: Not available

Other Adverse Effects: None known

Other Information: Avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Consult federal, state and local waste regulations to determine appropriate disposal options. May be considered a hazardous waste if disposed. Direct solid waste (landfill) or incineration at a solid waste facility is not permissible. Do not discharge to sanitary or storm sewer. Personnel handling waste containers should follow precautions provided in this document.

Shipping containers must be DOT authorized packages. Follow licensure and regulations for transport of hazardous material and hazardous waste as applicable.

14. TRANSPORT INFORMATION

US DOT

UN Identification Number	NA1993
Proper Shipping Name	Fuel oil (No. 2)
Hazard Class and Packing Group	3, PGIII
Shipping Label	Flammable liquid
Placard / Bulk Package	Flammable liquid, 1993
Emergency Response Guidebook Guide Number	128

This product may be re-classified as a "Combustible Liquid" meeting the definition in 49 CFR 173.120 unless transported by vessel or aircraft.

Specific placard requirements must be met for shipments of this product as a Combustible Liquid by rail (See 49 CFR 172.332).

Non-bulk packages ($\leq$ 119 gal) of Combustible Liquids in package sizes less than the product reportable quantity are not regulated as hazardous materials if the material does not meet any other hazard class.

IATA Information

UN Identification Number	UN1202
Proper Shipping Name	Fuel oil (No. 2)
Hazard Class and Packing Group	3, PGIII



SAFETY DATA SHEET

No. 2 Fuel Oil

ICAO Label	3
Packing Instructions Cargo	355
Max Quantity Per Package Cargo	220L
Packing Instructions Passenger	344Y
Max Quantity per Package Passenger	60L

ICAO

UN Identification Number	UN1202
Shipping Name / Description	Fuel oil (No. 2)
Hazard Class and Packing Group	3, PG III
IMDG Label	3

IMDG

UN Identification Number	UN1202
Shipping Name / Description	Heating Oil, Light
Hazard Class and Packing Group	3, PGIII
IMDG Label	3
EmS Number	N/A
Marine Pollutant	Yes

15. REGULATORY INFORMATION

U.S. Federal, State, and Local Regulatory Information

Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other federal, state, or local regulations; consult those regulations applicable to your facility/operation.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning And Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	Yes
Fire Hazard	Yes
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Clean Water Act (Oil Spills)

Any spill or release of this product to "navigable waters" (Essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) or, if not practical, the U.S. Coast Guard with follow up to the National Response Center, as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

CERCLA Section 103 and SARA Section 304 (Release to the Environment)

The CERCLA definition of hazardous substances contains a "petroleum exclusion" clause which exempts this material. This product does not contain any chemicals subject to the reporting requirements of CERCLA Section 103 or SARA 304.

SARA Section 313- Supplier Notification

This product does not contain any chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372.

EPA Notification (Oil Spills)

If there is a discharge of more than 1,000-gallons of oil into or upon navigable waters of the United States, or if it is the second spill event of 42 gallons or more of oil into water within a twelve (12) month period, a written report must be submitted to the Regional Administrator of the EPA within sixty days of the event.



SAFETY DATA SHEET

No. 2 Fuel Oil

Pennsylvania Right to Know Hazardous Substance list:

The following product components are cited in the Pennsylvania Special Hazardous Substance List, and are present at levels which require reporting.

Component	CAS	Amount
No. 2 Fuel Oil	68476-30-2	100%

New Jersey Right to Know Hazardous Substance list:

The following product components are cited in the New Jersey Right to Know Hazardous Substance List, and are present at levels which require reporting.

Component	CAS	Amount
No. 2 Fuel Oil	68476-30-2	100%

California Proposition 65 WARNING: This product contains chemicals known to the State of California to cause Cancer or Reproductive Toxicity.

Component	CAS	Amount
Naphthalene	91-20-3	<0.1%

U.S. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Canadian Regulatory Information (WHMIS)

Class B3 – Combustible Liquid

Class D2A – Materials causing other toxic effects. (Very Toxic)

16. OTHER INFORMATION

Version	6
Issue Date	June 1, 2021
Prior Issue Date	June 26, 2019

Description of Revisions

Update viscosity information in Section 9. Update transportation information in Section 14 to clarify US DOT re-classification option as a Combustible Liquid.

Abbreviations

°F	Degrees Fahrenheit (temperature)	mL	Milliliter
<	Less than	mm ²	Square millimeters
=	Equal to	mmHg	Millimeters of mercury (pressure)
>	Greater than	N/A	Not applicable
AP	Approximately	N/D	Not determined
C	Centigrade (temperature)	ppm	Parts per million
kg	Kilogram	sec	Second
L	Liter	ug	Micrograms
mg	Milligrams		

Acronyms



SAFETY DATA SHEET

No. 2 Fuel Oil

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
AIHA	American Industrial Hygiene Association	OPA	Oil Pollution Act of 1990
AL	Action Level	OSHA	U.S. Occupational Safety & Health Administration
ANSI	American National Standards Institute	PEL	Permissible Exposure Limit (OSHA)
API	American Petroleum Institute	RCRA	Resource Conservation and Recovery Act Reauthorization Act of 1986 Title III
CAS	Chemical Abstract Service	REL	Recommended Exposure Limit (NIOSH)
CERCLA	Comprehensive Emergency Response, Compensation, and Liability Act	RVP	Reid Vapor Pressure
DOT	U.S. Department of Transportation	SARA	Superfund Amendments and
EC50	Ecological concentration 50%	SCBA	Self Contained Breathing Apparatus
EPA	U.S. Environmental Protection Agency	SPCC	Spill Prevention, Control, and Countermeasures
ERPG	Emergency Response Planning Guideline	STEL	Short Term Exposure Limit (generally 15 minutes)
GHS	Global Harmonized System	TLV	Threshold Limit Value (ACGIH)
HMIS	Hazardous Materials Information System	TSCA	Toxic Substances Control Act
IARC	International Agency for Research On Cancer	TWA	Time Weighted Average (8 hr.)
IATA	International Air Transport Association	UN	United Nations
IMDG	International Maritime Dangerous Goods	UNECE	United Nations Economic Commission for Europe
Koc	Soil Organic Carbon	WEEL	Workplace Environmental Exposure Level (AIHA)
LC50	Lethal concentration 50%	WHMIS	Canadian Workplace Hazardous Materials Information System
LD50	Lethal dose 50%		
MSHA	Mine Safety and Health Administration		
NFPA	National Fire Protection Association		
NIOSH	National Institute of Occupational Safety and Health		
NOIC	Notice of Intended Change		

Disclaimer of Expressed and Implied Warranties

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

**** End of Safety Data Sheet ****

ATTACHMENT E210 – AIR POLLUTION CONTROL
EQUIPMENT (U28a)

Attachment E210: Air Pollution Control Equipment Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC
 Unit No(s): U28a

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the instructions (DEEP-NSR-INST-210) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this supplemental application form to provide the air pollution control equipment information for all units that are part of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I. Summary Sheet

Unit No.	Unit Description	Control Equipment		Overall Control Efficiency (%)	Pollutant(s) Controlled	*Basis	Stack No.
		No.	Type				
U28a	Tank 123	28a1	IFR	98	VOC	N/A	N/A
U28a	Tank 123 Tank Cleaning	28a2	ThermalOxidizer	98	VOC	Manufacturer	N/A

* Submit supporting documentation with this form, e.g., stack test data, manufacturer's guarantees, etc. as Attachment E210(Control Equipment No.).

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Part II: Specific Control Equipment

Complete the appropriate subsection for each *distinct* piece of control equipment.

1. Adsorption Device

Control Equipment Number of Adsorption Unit: _____

Unit Number of Unit which Uses Adsorption Unit: _____

Manufacturer and Model Number		
Construction Date		
Adsorbent		☐ Activated Charcoal Type: ☐ Granulated ☐ Other (specify): ☐ Powdered
Number of Beds		
Dimensions of Beds ☐ Check here if additional sheets are necessary, and label and attach them to this sheet.	Bed No. 1	Thickness in direction of gas flow: _____ inches Cross-section area: _____ square inches
	Bed No. 2	Thickness in direction of gas flow: _____ inches Cross-section area: _____ square inches
	Bed No. 3	Thickness in direction of gas flow: _____ inches Cross-section area: _____ square inches
Inlet Gas Temperature		_____ °F
Design Pressure Drop Across Unit		_____ inches H ₂ O
Operating Pressure Drop Range Across Unit		- _____ inches H ₂ O
Gas Flow Rate		_____ scfm
Type of Regeneration		☐ Replacement ☐ Steam ☐ Other (specify): _____
Method of Regeneration		☐ Alternate use of beds ☐ Source shut down ☐ Other (specify): _____ Describe procedures used to ensure that emissions from regeneration process are treated or minimized: _____
Maximum Operation Time Before Regeneration		
Is Adsorber Equipped with a Break-Through Detector?		☐ Yes ☐ No
Pollutant(s) Controlled		
Collection Efficiency(s) of Adsorber		_____ %
Control Efficiency(s) of Adsorber		_____ %
Overall Control Efficiency(s)		_____ %

2. Afterburner (Incinerator for Air Pollution Control)

Control Equipment Number of Afterburner: 28a2

Unit Number of Unit which Uses Afterburner: U28a

Manufacturer and Model Number		Portable Thermal Oxidizer (Rental - Manufacturer TBD, see example in Attachment)			
Construction Date		Varies - different TOs can be used			
Type of Afterburner		☒ Thermal ☐ Catalytic ☐ Other (specify):			
Combustion Chamber Dimensions	Length	TBD inches			
	Cross-section area	TBD square inches			
Inlet Gas Temperature		TBD °F			
Operating Temperature Range of Chamber		400 - 1000 °F			
Auxiliary Fuel Information					
Fuel Type	% Sulfur by Weight	Higher Heating Value (BTU)	Maximum Hourly Firing Rate	Maximum Annual Fuel Usage	Units (gal or ft³)
TBD					
TBD					
Number of Burners		TBD			
Burner Maximum Heat Input	Burner No. 1	BTU per hour			
	Burner No. 2	BTU per hour			
	Burner No. 3	BTU per hour			
Catalyst Used		☐ Yes ☐ No			
Catalyst Type					
Catalyst Sampling Interval					
Heat Exchanger Used		☐ Yes ☐ No			
Type of Heat Exchanger					
Heat Recovery					
Reagent Used					
Gas Flow Rate		scfm			
Combustion Chamber Design Residence Time		seconds			
Moisture Content of Exhaust Gas		%			
Heat Recovery		%			
Pollutant(s) Controlled					
Collection Efficiency(s) of Afterburner		%			

2. Afterburner (Incinerator for Air Pollution Control) (continued)

Control Equipment Number of Afterburner: 28a2

Unit Number of Unit which Uses Afterburner: U28a

Control Efficiency(s) of Afterburner	98 %
Overall Control Efficiency(s)	98 %

3. Condenser

Control Equipment Number of Condenser: _____

Unit Number of Unit which Uses Condenser: _____

Manufacturer and Model Number			
Construction Date			
Heat Exchange Area	square feet		
Coolant Flow Rate	☐ Water: gpm ☐ Air: scfm ☐ Other (specify):		
Gas Flow Rate	scfm		
Coolant Temperature	In: °F	Out: °F	
Gas Temperature	In: °F	Out: °F	
Pollutant(s) Controlled			
Collection Efficiency(s) of Condenser	%		
Control Efficiency(s) of Condenser	%		
Overall Control Efficiency(s)	%		

4. *Electrostatic Precipitator*

Control Equipment Number of Electrostatic Precipitator: _____

Unit Number of Unit which Uses Electrostatic Precipitator: _____

Manufacturer and Model Number	
Construction Date	
Collecting Electrode Area	square feet
Gas Flow Rate	scfm
Voltage Across the Precipitator Plates	kV
Resistivity of Pollutants	ohms
Number of Fields in the Precipitator	
Grain Loading	In: grains/scf Out: grains/scf
Pollutant(s) Controlled	
Collection Efficiency(s) of Electrostatic Precipitator	%
Control Efficiency(s) of Electrostatic Precipitator	%
Overall Control Efficiency(s)	%

5. Filter

Control Equipment Number of Filter: _____

Unit Number of Unit which Uses Filter: _____

Manufacturer and Model Number	
Construction Date	
Filtering Material	
Air to Cloth Ratio	square feet
Net Cloth Area	square feet
Number of Bags	
Cleaning Method	☐ Shaker ☐ Reverse Air ☐ Pulse Air ☐ Pulse Jet ☐ Other (specify):
Gas Cooling Method	☐ Ductwork Length: ft. Diameter: in. ☐ Heat Exchanger ☐ Bleed-in Air ☐ Water Spray ☐ Other (specify): ☐ Not Applicable
Cooling Medium Flow Rate	☐ Bleed-in Air: scfm ☐ Water Spray: gpm
Exhaust Gas Flow Rate	scfm
Inlet Gas Temperature	°F
Inlet Gas Dew Point	°F
Grain Loading	In: grains/scf Out: grains/scf
Design Pressure Drop Across Unit	inches H ₂ O
Operating Pressure Drop Range Across Unit	- inches H ₂ O
Pollutant(s) Controlled	
Collection Efficiency(s) of Filter	%
Control Efficiency(s) of Filter	%
Overall Control Efficiency(s)	%

6. Cyclone

Control Equipment Number of Cyclone: _____

Unit Number of Unit which Uses Cyclone: _____

Manufacturer and Model Number				
Construction Date				
Type of Cyclone	☐ Single ☐ Multiple: Number of Cyclones			
Gas Flow Rate	scfm			
Grain Loading	In:	grains/scf	Out:	grains/scf
Design Pressure Drop Across Unit	inches H ₂ O			
Operating Pressure Drop Range Across Unit	- inches H ₂ O			
Pollutant(s) Controlled				
Collection Efficiency(s) of Cyclone	%			
Control Efficiency(s) of Cyclone	%			
Overall Control Efficiency(s)	%			

7. Mist Eliminator

Control Equipment Number of Mist Eliminator: _____

Unit Number of Unit which Uses Mist Eliminator: _____

Manufacturer and Model Number			
Construction Date			
Face Velocity	feet per second ☐ Vertical Flow ☐ Horizontal Flow ☐ Diagonal		
Design Pressure Drop Across Unit	inches H ₂ O		
Operating Pressure Drop Range Across Unit	- inches H ₂ O		
Flow Rate	scfm		
Pollutant(s) Controlled			
Collection Efficiency(s) of Mist Eliminator	%		
Control Efficiencies of Mist Eliminator	% @ 1 mmHg % @ 5 mmHg % @ 10 mmHg		
Overall Control Efficiency(s)	%		

8. Scrubber

Control Equipment Number of Scrubber: _____

Unit Number of Unit which Uses Scrubber: _____

Manufacturer and Model Number		
Construction Date		
Type of Scrubber		☐ Venturi
		☐ Wet Fan
		☐ Packed: Packing Material Size: Packed Height: inches
		☐ Spray: Number of Nozzles: Nozzle No. 1 Pressure: psig Nozzle No. 2 Pressure: psig Nozzle No. 3 Pressure: psig Nozzle No. 4 Pressure: psig
		☐ Other (specify):
Design Pressure Drop Across Unit		inches H ₂ O
Operating Pressure Drop Range Across Unit		- inches H ₂ O
Type of Flow		☐ Concurrent ☐ Countercurrent ☐ Crossflow
Scrubber Geometry	Length in direction of gas flow	feet square inches
	Cross-sectional area	
Chemical Composition of Scrubbing Liquid		
Scrubbing Liquid/Reagent Flow Rate		gpm
Fresh Liquid Make-Up Rate		gpm
Scrubber Liquid/Reagent Circulation		☐ One Pass ☐ Recirculated
Scrubber Liquid/Reagent pH		
Gas Flow Rate		scfm
Inlet Gas Temperature		°F
Design Outlet Grain Loading		gr/dscf
Pollutant(s) Controlled		
Collection Efficiency(s) of Scrubber		%
Control Efficiency(s) of Scrubber		%
Overall Control Efficiency(s)		%

9. Other Control Equipment for Degreasing Equipment

Name of Control Equipment: _____

Control Equipment Number of Control Equipment: _____

Unit Number of Unit which Uses Control Equipment: _____

Manufacturer and Model Number	
Construction Date	
Method of Control	☐ Refrigerator Chiller ☐ Water Spray ☐ Other (specify): _____
Pollutant(s) Controlled	
Collection Efficiency(s) of Control Equipment	%
Control Efficiency(s) of Control Equipment	%
Overall Control Efficiency(s)	%

10. Other Type of Control Equipment

Name of Control Equipment: Internal Floating Roof (IFR)

Control Equipment Number of Control Equipment: 28a1

Unit Number of Unit which Uses Control Equipment: U28a

Manufacturer and Model Number	N/A
Construction Date	12/17/2021
Pollutant(s) Controlled	VOC
Collection Efficiency(s) of Control Equipment	N/A %
Control Efficiency(s) of Control Equipment	98 %
Overall Control Efficiency(s)	98 %

Part III: Attachments

Please check the attachment being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E210(Control Equipment No.), etc.) and be sure to include the applicant's name.

- ☒ Attachment E210: *Manufacturer Information* - Submit supporting documentation for each piece of air pollution control equipment listed in Part I of this form, e.g., stack test data, manufacturer's guarantees, etc. Label each document in this Attachment referencing the applicable air pollution control equipment number as indicated in Part I of this form using this format: Attachment E210(Control Equipment No.). **REQUIRED**

ATTACHMENT E210-A – MANUFACTURER SPECIFICATIONS
FOR AIR POLLUTION CONTROL EQUIPMENT (U28a)



GEM Mobile Treatment Services, Inc.

15 MM BTU/HR MOBILE VAPOR COMBUSTOR



MOBILE VAPOR COMBUSTOR APPLICATIONS

TANK, SPHERE, VESSEL DEGASSING/REFILLING		TRUCK LOADING RACK & BARGE VAPOR CONTROL	
TEMPORARY VAPOR CONTROL UNIT REPLACEMENT		MULTI-SOURCE CONTROL FOR TURNAROUND SUPPORT	
UNIT SPECIFICATIONS		BURN CHAMBER SPECIFICATIONS	
DESIGN CAPACITY	15 MMBTU	BURN CHAMBER VOLUME	330 FT ³
TURNDOWN RATIO	10:1	BURN CHAMBER MATERIAL	CARBON STEEL
STANDARD OPERATING TEMP	900 - 1,750 °F	SPECIFIED FLOW	11,200 SCFM @ 1,750 °F
MAXIMUM TEMPERATURE	1,850 °F	RESIDENCE TIME	0.5 SEC @ SPECIFIED FLOW
FOOTPRINT	52' x 8' 6"	OTHER	
MAIN DISCONNECT	480 V, 3 PH, 100 AMPS	HMI INTERFACE	
MINIMUM GENERATOR	100 KVA / 80 KW	REMOTE CONTROL CAPABLE	
VAPOR LINE SPECIFICATIONS		REMOTE MONITORING	
# OF VAPOR INLETS	2	DETONATION FLAME ARRESTOR	
VAPOR INLET FITTINGS	6" MALE CAMLOCK	FLAME ARRESTOR	
VAPOR PIPING	8" STAINLESS STEEL	VAPOR LIQUID SEPERATOR	
VAPOR BLOWER TYPE	HSI Model 08204	NFPA COMPLIANT	
VAPOR BLOWER MAX FLOW	1,800 SCFM	BURN CHAMBER SIGHT PORTS	
VAPOR BLOWER MIN FLOW	300 SCFM	EXTERNAL TEMP CONTROL & SHUTDOWN RELAYS	

GEM Mobile Treatment Services, Inc.

15422 Assembly Lane

Huntington Beach, CA 92649

714-379-3877

www.gem-mobile.com

Spec Sheet: GEM-003

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ATTACHMENT E211 – STACK PARAMETERS (U28a)

Attachment E211: Stack Parameters Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-211) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this supplemental application form to provide the stack parameter information for all units that are part of this application package.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Stack Parameters Summary

Stack No.	Unit No.(s)	Control Equipment No.(s)	Stack Height (feet)	Stack Diameter (feet)	Stack Exit Temp (°F)		Stack Exhaust Flow Rate (ACFM)		Stack Exit Direction (H or V)	Rain Hat (Y or N)	Stack Lining Material	Stack Distance to Nearest Property Line (feet)
					Max	Min	Max	Min				
S28a	U28a	N/A	55	N/A	AMB	AMB	N/A	N/A	N/A	N/A	N/A	154

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

ATTACHMENT E212 – UNIT EMISSIONS (U28a)

Attachment E212: Unit Emissions Supplemental Application Form

Applicant Name: Global New Haven Terminals LLC
 Unit No.: U28a

DEEP USE ONLY
App. No.: _____

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-212) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete a separate form for *each* unit.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152.

Part I: Unit Emission Information

Pollutant	Potential Emissions at Maximum Capacity		Proposed Allowable Emissions		
	lb/hr	tpy	lb/hr	Other Units (specify)	tpy
Criteria Air Pollutants					
PM	N/A	N/A	N/A	N/A	N/A
PM₁₀	N/A	N/A	N/A	N/A	N/A
PM_{2.5} Total (filterable + condensable)	N/A	N/A	N/A	N/A	N/A
SO_x	N/A	N/A	N/A	N/A	N/A
NO_x	N/A	N/A	N/A	N/A	N/A
CO	N/A	N/A	N/A	N/A	N/A
VOC	N/A	16.134	N/A	N/A	10.162
Pb	N/A	N/A	N/A	N/A	N/A
GHG	N/A	N/A	N/A	N/A	N/A
Hazardous or Other Air Pollutants					
Hexane	N/A	0.066	N/A	N/A	0.045
Benzene	N/A	0.075	N/A	N/A	0.052
2,2,4-TMP	N/A	0.091	N/A	N/A	0.065
Toluene	N/A	0.099	N/A	N/A	0.073
Ethylbenzene	N/A	0.009	N/A	N/A	0.008
Xylenes	N/A	0.043	N/A	N/A	0.036
Cumene	N/A	0.0024	N/A	N/A	0.0021
Naphthalene	N/A	0.00137	N/A	N/A	0.00136

Potential Emissions Calculation Basis: EPA AP-42 with uncontrolled tank cleaning

Proposed Allowable Emissions Calculation Basis: EPA AP42 with controlled tank cleaning

Part II: Regulatory Standards

Enter the regulatory standard(s) and the proposed allowable emissions for each pollutant emitted by the unit using the same units (e.g., ppmvd, lb/MMBTU, lb/hour, lb/day, etc.). More than one regulatory standard will often apply to a unit for a particular pollutant, list all that apply. Enter the regulatory citation(s) for the standard(s).

NOTE: The applicant should be aware of any existing regulatory standard applicable to the unit and should not propose allowable emissions in excess of the regulatory standard(s).

Pollutant	Regulatory Standard(s) (specify units)	Proposed Allowable Emissions (specify units)	Regulatory Citation(s)
Criteria Air Pollutants			
PM			
PM₁₀			
PM_{2.5} Total (filterable + condensable)			
SO_x			
NO_x			
CO			
VOC			
Pb			
GHG			
Hazardous or Other Air Pollutants (Standards other than RCSCA §22a-174-29)			

Part III: Attachments

Please check the attachment being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment E212-A, etc.) and be sure to include the applicant's name.

☒	Attachment E212-A: <i>Sample Calculations</i> - Submit sample calculations used to determine all emissions rates, excluding GHG. See Attachment E212-C for GHG emissions. REQUIRED
☒	Attachment E212-B: <i>RCSCA section 22a-174-29 Hazardous Air Pollutants Compliance</i> – Submit a completed CTMASC spreadsheet , or equivalent, to demonstrate compliance with RCSCA section 22a-174-29. REQUIRED
☒	Attachment E212-C: <i>Greenhouse Gas Emissions</i> – Submit a completed CO₂ Equivalents Calculator Spreadsheet , or equivalent, used to quantify Greenhouse Gas emissions, REQUIRED

ATTACHMENT E212-A POTENTIAL TO EMIT FOR TANK 123

PTE Tank Summary

Tank Number 123

VOC and HAP Emissions

	VOCs		Hexane		Benzene		2,2,4-TMP		Toluene		Ethylbenzene		Xylenes		Cumene		Naphthalene	
	ton/yr	lb/hr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr	ton/yr	lb/yr
Routine Emissions	5.562	1.270	0.03	51.578	0.03	61.386	0.04	82.169	0.05	100.082	0.01	12.490	0.03	60.225	0.002	3.797	0.001	2.698
Tank Landings	3.386	0.773	0.01	29.431	0.02	32.537	0.02	36.899	0.02	36.046	0.001	2.281	0.005	9.943	0.0002	0.379	0.00001	0.016
Tank Cleanings	1.214	0.277	0.004	8.749	0.005	9.560	0.005	10.758	0.005	10.338	0.0003	0.636	0.0014	2.764	0.0001	0.103	0.000002	0.004
TOTAL	10.162	2.320	0.045	89.757	0.052	103.483	0.065	129.827	0.073	146.466	0.008	15.407	0.036	72.932	0.0021	4.279	0.00136	2.719

Hourly Emission Rates for HAPs

	Annual Tank Emissions, lb/hr ^a	Uncontrolled Vapor Space Purge During Cleaning, lb/hr ^b	Controlled Vapor Space Purge During Cleaning, lb/hr ^c	Refill After Landing, lb/hr ^d
Hexane	0.01025	12.3615	0.2472	1.8512
Benzene	0.01181	13.5074	0.2701	2.0879
2,2,4-TMP	0.01482	15.2011	0.3040	2.3980
Toluene	0.01672	14.6077	0.2922	2.4036
Ethylbenzene	0.00176	0.8981	0.0180	0.1586
Xylenes	0.00833	3.9057	0.0781	0.6937
Cumene	0.00049	0.1460	0.0029	0.0271
Naphthalene	0.00031	0.0058	0.0001	0.0012

^a = Total annual routine, landing and cleaning emissions averaged over 8760 hours.^b = Worst case hourly emissions during uncontrolled cleaning event.^c = Worst case hourly emissions during controlled cleaning event.^d = Worst case hourly emissions during refill after landing.

MONTHLY IFRT TANK VOC AND HAP ESTIMATIONS

MONTH January				MONTH February				MONTH March			
INPUT DATA		Symbol	Units	ROUTINE EMISSIONS CALCULATIONS		Symbol	Units	ROUTINE EMISSIONS CALCULATIONS		Symbol	Units
Tank No.	123										
Nearest US Location			Bridgeport, CT	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)		LT	636.89 lb/month 0.32 tons/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)		LT	668.69 lb/month 0.33 tons/month
Absolute Pressure		P _A	14.69 psi	Product Type			Gasoline - RVP 15	Product Type			Gasoline - RVP 15
Product Information				Monthly Throughput (only change if actual is known)		Q _{month}	892,857.14 barrels/month	Monthly Throughput (only change if actual is known)		Q _{month}	892,857.14 barrels/month
Average organic liquid density		W _L	5.60 lb/gal	Vapor Molecular weight		M _v	60.15	Vapor Molecular weight		M _v	60.15
Average Reid Vapor Pressure		RVP	13.00	Vapor Pressure Equation Constant A		A	11.60	Vapor Pressure Equation Constant A		A	11.60
Product factor; 0.4 for crude oils or 1 for other organic liquids		K _c	1.00	Vapor Pressure Equation Constant B		B	4937.93 °R	Vapor Pressure Equation Constant B		B	4937.93 °R
Tank design data			0	Daily total solar insolation on a horizontal surface		I	560.0 Btu/ft ² -day	Daily total solar insolation on a horizontal surface		I	1156.0 Btu/ft ² -day
Shell height		H _s	55.00 ft	Average Daily Ambient Temperature Eq. 1-30				Average Daily Ambient Temperature Eq. 1-30			
Diameter		D	140.00 ft	TAA = ((TAX+TAN)/2)		T _{AA}	490.50 °R	TAA = ((TAX+TAN)/2)		T _{AA}	498.90 °R
Throughput		Q	37,500,000 gal/month	Average daily maximum ambient temperature, Table 7.1-7		T _{AX}	496.90 °R	Average daily maximum ambient temperature, Table 7.1-7		T _{AX}	506.00 °R
Maximum Filling Height (use Hs-1 if unknown)		H _{LX}	54.00 ft	Average daily minimum ambient temperature, Table 7.1-7		T _{AN}	484.10 °R	Average daily minimum ambient temperature, Table 7.1-7		T _{AN}	491.80 °R
Minimum Filling Height (use 1 if unknown)		H _{LN}	1.00 ft	Liquid Bulk Temperature Eq 1-31:				Liquid Bulk Temperature Eq 1-31:			
Liquid height (assume 1/2 Hs)		H _L	27.50 ft	TB = TAA + 0.003 as I		T _B	490.92	TB = TAA + 0.003 as I		T _B	492.84
Tank Construction (pick from drop down list)			Welded	Average Daily Liquid Surface Temperature Eq. 2-6				Average Daily Liquid Surface Temperature Eq. 2-6			
Tank Color (pick from drop down list)			White	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I		T _{LA}	491.35 °R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I		T _{LA}	493.49 °R
Tank Shell Condition (pick from drop down list)			Average	True Vapor Pressure Eq. 1-25:				True Vapor Pressure Eq. 1-25:			
Tank Interior Condition (pick from drop down list)			Light Rust	PvA = exp(A-(B/TLA))		P _{vA}	4.713 psia	PvA = exp(A-(B/TLA))		P _{vA}	4.922 psia
Tank paint solar absorptance, dimensionless, Table 7.1-6		α	0.25	Vapor pressure function Eq. 2-4:				Vapor pressure function Eq. 2-4:			
Internal floating roof design data				P* = P _{vA} /P _A /((1+(1-(P _{vA} /P _A)) ^{0.5})-2		P*	0.096 NA	P* = P _{vA} /P _A /((1+(1-(P _{vA} /P _A)) ^{0.5})-2		P*	0.102 NA
Rim Seal Type:				Rim Seal Losses Eq. 2-3:				Rim Seal Losses Eq. 2-3:			
Rim Seal Fit (Average or Tight fitting)			Average	L _R = ((K _{RA} + K _{RB} √')DP* M _v K _c)/12 months		L _R	108.25 lb/month	L _R = ((K _{RA} + K _{RB} √')DP* M _v K _c)/12 months		L _R	114.15 lb/month
Number of fixed roof support columns		Nc	8.00 NA	Withdrawal losses Eq. 2-19:				Withdrawal losses Eq. 2-19:			
Effective column diameter (1.1 for 9x7 in. built up columns; 0.7 for 8 in. pipe columns; 1.0 if		Fc	1.1 ft	L _W = (((0.943)QCsw _L)/D)]*[1+(N _f F _d /D)]		L _W	53.69 lb/month	L _W = (((0.943)QCsw _L)/D)]*[1+(N _f F _d /D)]		L _W	53.69 lb/month
Deck seam loss per unit seam length factor; 0.0 or 0.14		KD	0.14 lb-mole/ft-yr	Deck Fitting Losses Eq.2-13:				Deck Fitting Losses Eq.2-13:			
Zero wind speed LR factor; see Table 7.1-8		KRa	1.6 lb-mole/ft-yr	L _F = F _F P*M _v K _c)		LF	209.73 lb/month	L _F = F _F P*M _v K _c)		LF	221.17 lb/month
Wind speed dependent LR factor; see Table 7.1-8		KRb	0.3 lb-mole/(mph) ¹ /ft-yr	Deck Seam Losses Eq. 2-18:				Deck Seam Losses Eq. 2-18:			
Average ambient wind speed at tank site; for IFR use Zero		v	0.0 mph	L _D = K _D S _D D ² P*M _v K _c /12 months		LD	265.21 lb/month	L _D = K _D S _D D ² P*M _v K _c /12 months		LD	279.68 lb/month
Seal-related wind speed exponent; see Table 7.1-8		n	1.6 NA	HAPS Speciation				HAPS Speciation			
Shell clingage factor; see Table 7.1-10		Cs	0.0015 bb/1,000 ft ²	Product - select from list			Gasoline	Product - select from list			Gasoline
Deck Design Data				Total HAP Monthly Emissions			20.217 lb/month	Total HAP Monthly Emissions			20.868 lb/month
Deck Seam (choose Welded or Bolted)			Bolted	Individual HAP Monthly Emissions				Individual HAP Monthly Emissions			
Select Deck Construction Type			Continuous sheet	Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _L L _W				Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _L L _W			
If bolted continuous sheet or panel, enter width			5	L _{T1}				L _{T1}			
If bolted panel, also enter length			0	hexane			2.2533 lb/month	hexane			2.3832 lb/month
Deck seam length factor; Length of Seam / Area of Deck		SD	0.20 ft/ft ²	benzene			2.7614 lb/month	benzene			2.9055 lb/month
Deck Fitting Data		Qty	Kf (Table 7.1-12)	TMP			4.1129 lb/month	TMP			4.2763 lb/month
Access Hatch Bolted cover, gasketed		3	1.6	toluene			5.5435 lb/month	toluene			5.7024 lb/month
Column Well Built-up column, gasketed sliding cover		8	33.0	ethylbenzene			0.8510 lb/month	ethylbenzene			0.8609 lb/month
Unslotted Guidepole and Well Gasketed sliding cover w/pole sleeve		0	8.6	xylenes			4.1877 lb/month	xylenes			4.2308 lb/month
Slotted guidepole/sample well Gasketed sliding cover, with pole sleeve		1	11.0	cumene			0.2835 lb/month	cumene			0.2851 lb/month
Gauge-float well (automatic gat Bolted cover, gasketed		1	2.8	naphthalene			0.2233 lb/month	naphthalene			0.2234 lb/month
Gauge-hatch/sample port Weighted mechanical actuation, gasketed		0	0.5	Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v				Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v			
Vacuum Breaker Weighted mechanical actuation, gasketed		3	6.2	M _i		M _v	Z _{vi}	M _i		M _v	Z _{vi}
Deck drain Stub drain (1-inch diameter)		29	1.2	hexane		86.18	60	hexane		86.18	60
Legs (IFR type) IFR type, Adjustable		0	7.9	benzene		78.11	60	benzene		78.11	60
Rim Vent Weighted mechanical actuation, gasketed		0	0.7	2,2,4 TMP		114.23	60	2,2,4 TMP		114.23	60
Ladder Sliding cover, ungasketed		1	98.0	toluene		92.14	60	toluene		92.14	60
Ladder / Guide-Pole Combinati Ladder sleeve, gasketed sliding cover		0	60.0	ethylbenzene		106.17	60	ethylbenzene		106.17	60
Monthly deck fitting loss factor:		F _F	36.17 per month	xylenes		106.17	60	xylenes		106.17	60
				cumene		120.19	60	cumene		120.19	60
				naphthalene		128.17	60	naphthalene		128.17	60
				Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{vA}				Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{vA}			
				P _i = P _{vA} (X _i)		P _{vA}	y _i	P _i = P _{vA} (X _i)		P _{vA}	y _i
				hexane		0.009680	4.713	hexane		0.012697	5.681
				benzene		0.011169	4.713	benzene		0.014919	5.681
				2,2,4 TMP		0.008362	4.713	2,2,4 TMP		0.011297	5.681
				toluene		0.009416	4.713	toluene		0.013018	5.681
				ethylbenzene		0.000455	4.713	ethylbenzene		0.000655	5.681
				xylenes		0.001965	4.713	xylenes		0.002839	5.681
				cumene		6.09E-05	4.713	cumene		9.04E-05	5.681
				naphthalene		1.87E-06	4.713	naphthalene		3.00E-06	5.681
				Liquid Mole Fraction Eq. 40-4 x _i = (Z _i M _i)/M _i				Liquid Mole Fraction Eq. 40-4 x _i = (Z _i M _i)/M _i			
				Z _{Li}		M _i	X _i	Z _{Li}		M _i	X _i
				hexane		0.01	96	hexane		0.01	96
				benzene		0.018	96	benzene		0.018	96
				2,2,4 TMP		0.04	96	2,2,4 TMP		0.04	96
				toluene		0.07	96	toluene		0.07	96
				ethylbenzene		0.014	96	ethylbenzene		0.014	96
				xylenes		0.07	96	xylenes		0.07	96
				cumene		0.005	96	cumene		0.005	96
				naphthalene		0.00415	96	naphthalene		0.00415	96
				Component Vapor pressure P _{vA} =(0.019337)10 ⁴ *(A-(B/(TLA+C)))				Component Vapor pressure P _{vA} =(0.019337)10 ⁴ *(A-(B/(TLA+C)))			
				A		B	C	A		B	C
				hexane		6.878	1171.5	hexane		6.878	1171.5
				benzene		6.906	1211	benzene		6.906	1211
				2,2,4 TMP		6.812	1257.8	2,2,4 TMP		6.812	1257.8
				toluene		7.017	1377.6	toluene		7.017	1377.6
				ethylbenzene		6.95	1419.3	ethylbenzene		6.95	1419.3
				xylenes		7.009	1462.3	xylenes		7.009	1462.3
				cumene		6.929	1455.8	cumene		6.929	1455.8
				naphthalene		7.146	1831.6	naphthalene		7.146	1831.6

MONTH April				MONTH May				MONTH June									
ROUTINE EMISSIONS CALCULATIONS		Symbol	Units	ROUTINE EMISSIONS CALCULATIONS		Symbol	Units	ROUTINE EMISSIONS CALCULATIONS		Symbol	Units						
Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)		LT	1,022.28 lb/month 0.51 tons/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)		LT	721.54 lb/month 0.36 tons/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)		LT	904.71 lb/month 0.45 tons/month						
Product Type		Gasoline - RVP 15		Product Type		Gasoline - RVP 9		Product Type		Gasoline - RVP 9							
Monthly Throughput (only change if actual is known)		Q _{month}	892,857.14 barrels/month	Monthly Throughput (only change if actual is known)		Q _{month}	892,857.14 barrels/month	Monthly Throughput (only change if actual is known)		Q _{month}	892,857.14 barrels/month						
Vapor Molecular weight		M _v	60.15	Vapor Molecular weight		M _v	68.00	Vapor Molecular weight		M _v	68.00						
Vapor Pressure Equation Constant A		A	11.60	Vapor Pressure Equation Constant A		A	11.76	Vapor Pressure Equation Constant A		A	11.76						
Vapor Pressure Equation Constant B		B	4937.93 °R	Vapor Pressure Equation Constant B		B	5315.06 °R	Vapor Pressure Equation Constant B		B	5315.06 °R						
Daily total solar insolation on a horizontal surface		I	1490.0 Btu/ft ² -day	Daily total solar insolation on a horizontal surface		I	1750.0 Btu/ft ² -day	Daily total solar insolation on a horizontal surface		I	1862.0 Btu/ft ² -day						
Average Daily Ambient Temperature Eq. 1-30				Average Daily Ambient Temperature Eq. 1-30				Average Daily Ambient Temperature Eq. 1-30									
TAA = ((TAX+TAN)/2)		T _{AA}	509.15 °R	TAA = ((TAX+TAN)/2)		T _{AA}	518.65 °R	TAA = ((TAX+TAN)/2)		T _{AA}	528.60 °R						
Average daily maximum ambient temperature, Table 7.1-7		T _{AX}	516.80 °R	Average daily maximum ambient temperature, Table 7.1-7		T _{AX}	526.50 °R	Average daily maximum ambient temperature, Table 7.1-7		T _{AX}	536.10 °R						
Average daily minimum ambient temperature, Table 7.1-7		T _{AN}	501.50 °R	Average daily minimum ambient temperature, Table 7.1-7		T _{AN}	510.80 °R	Average daily minimum ambient temperature, Table 7.1-7		T _{AN}	521.10 °R						
Liquid Bulk Temperature Eq 1-31:				Liquid Bulk Temperature Eq 1-31:				Liquid Bulk Temperature Eq 1-31:									
TB = TAA + 0.003 αs I		T _B	510.27	TB = TAA + 0.003 αs I		T _B	519.96	TB = TAA + 0.003 αs I		T _B	530.00						
Average Daily Liquid Surface Temperature Eq. 1-28				Average Daily Liquid Surface Temperature Eq. 1-28				Average Daily Liquid Surface Temperature Eq. 1-28									
TLA = 0.3*TAA + 0.7*TB + 0.004*α*I		T _{LA}	511.42 °R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I		T _{LA}	521.32 °R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I		T _{LA}	531.44 °R						
True Vapor Pressure Eq. 1-25:				True Vapor Pressure Eq. 1-25:				True Vapor Pressure Eq. 1-25:									
PvA = exp(A-(B/TLA))		P _{VA}	6.991 psia	PvA = exp(A-(B/TLA))		P _{VA}	4.763 psia	PvA = exp(A-(B/TLA))		P _{VA}	5.783 psia						
Vapor pressure function Eq. 2-4:				Vapor pressure function Eq. 2-4:				Vapor pressure function Eq. 2-4:									
P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²		P*	0.160 NA	P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²		P*	0.098 NA	P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²		P*	0.124 NA						
Rim Seal Losses Eq. 2-3:				Rim Seal Losses Eq. 2-3:				Rim Seal Losses Eq. 2-3:									
L _R = ((K _{RA} + K _{RB} √ ³)DP* M _v K _c)/12 months		L _R	179.78 lb/month	L _R = ((K _{RA} + K _{RB} √ ³)DP* M _v K _c)/12 months		L _R	123.96 lb/month	L _R = ((K _{RA} + K _{RB} √ ³)DP* M _v K _c)/12 months		L _R	157.96 lb/month						
Withdrawal losses Eq. 2-19:				Withdrawal losses Eq. 2-19:				Withdrawal losses Eq. 2-19:									
L _W =[((0.943)QCsW ₁)/D]*[1+(N _s F _d /D)]		L _W	53.69 lb/month	L _W =[((0.943)QCsW ₁)/D]*[1+(N _s F _d /D)]		L _W	53.69 lb/month	L _W =[((0.943)QCsW ₁)/D]*[1+(N _s F _d /D)]		L _W	53.69 lb/month						
Deck Fitting Losses Eq.2-13:				Deck Fitting Losses Eq.2-13:				Deck Fitting Losses Eq.2-13:									
L _F = F _F P*M _v K _c)		LF	348.33 lb/month	L _F = F _F P*M _v K _c)		LF	240.18 lb/month	L _F = F _F P*M _v K _c)		LF	306.05 lb/month						
Deck Seam Losses Eq. 2-18:				Deck Seam Losses Eq. 2-18:				Deck Seam Losses Eq. 2-18:									
L _D = K _D S _D D ² P*M _v K _c)/12 months		LD	440.47 lb/month	L _D = K _D S _D D ² P*M _v K _c)/12 months		LD	303.71 lb/month	L _D = K _D S _D D ² P*M _v K _c)/12 months		LD	387.01 lb/month						
HAPS Speciation				HAPS Speciation				HAPS Speciation									
Product - select from list		Gasoline		Product - select from list		Gasoline		Product - select from list		Gasoline							
Total HAP Monthly Emissions		28.905 lb/month		Total HAP Monthly Emissions		31.366 lb/month		Total HAP Monthly Emissions		38.886 lb/month							
Individual HAP Monthly Emissions		Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W		Individual HAP Monthly Emissions		Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W		Individual HAP Monthly Emissions		Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W							
		L _{T1}				L _{T1}				L _{T1}							
hexane		3.9348	lb/month	hexane		4.3239	lb/month	hexane		5.6679	lb/month						
benzene		4.6576	lb/month	benzene		5.1514	lb/month	benzene		6.7313	lb/month						
2,2,4 TMP		6.2862	lb/month	2,2,4 TMP		6.8913	lb/month	TMP		8.7519	lb/month						
toluene		7.7051	lb/month	toluene		8.3850	lb/month	toluene		10.3436	lb/month						
ethylbenzene		0.9911	lb/month	ethylbenzene		1.0434	lb/month	ethylbenzene		1.1826	lb/month						
xylenes		4.7989	lb/month	xylenes		5.0296	lb/month	xylenes		5.6413	lb/month						
cumene		0.3070	lb/month	cumene		0.3168	lb/month	cumene		0.3416	lb/month						
naphthalene		0.2243	lb/month	naphthalene		0.2248	lb/month	naphthalene		0.2261	lb/month						
Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v				Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v				Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v									
		M _i	M _v	Z _{vi}			M _i	M _v	Z _{vi}								
hexane		86.18	60	0.00351	hexane		86.18	68	0.00567	hexane		86.18	68	0.00603			
benzene		78.11	60	0.00381	benzene		78.11	68	0.00627	benzene		78.11	68	0.00677			
2,2,4 TMP		114.23	60	0.00427	2,2,4 TMP		114.23	68	0.00710	2,2,4 TMP		114.23	68	0.00776			
toluene		92.14	60	0.00407	toluene		92.14	68	0.00693	toluene		92.14	68	0.00774			
ethylbenzene		106.17	60	0.00025	ethylbenzene		106.17	68	0.00044	ethylbenzene		106.17	68	0.00051			
xylenes		106.17	60	0.00107	xylenes		106.17	68	0.00190	xylenes		106.17	68	0.00221			
cumene		120.19	60	0.00004	cumene		120.19	68	0.00007	cumene		120.19	68	0.00009			
naphthalene		128.17	60	1.54E-06	naphthalene		128.17	68	3.03E-06	naphthalene		128.17	68	3.88E-06			
Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}				Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}				Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}									
		P _i = P _{VA} (x _i)	P _{VA}	y _i			P _i = P _{VA} (x _i)	P _{VA}	y _i			P _i = P _{VA} (x _i)	P _{VA}	y _i			
hexane		0.017117	6.991	0.00245	hexane		0.021310	4.763	0.00447	hexane		0.027513	5.783	0.00476			
benzene		0.020515	6.991	0.00293	benzene		0.025982	4.763	0.00546	benzene		0.034106	5.783	0.00590			
2,2,4 TMP		0.015728	6.991	0.00225	2,2,4 TMP		0.020138	4.763	0.00423	2,2,4 TMP		0.026717	5.783	0.00462			
toluene		0.018595	6.991	0.00266	toluene		0.024350	4.763	0.00511	toluene		0.033027	5.783	0.00571			
ethylbenzene		0.000979	6.991	0.00014	ethylbenzene		0.001333	4.763	0.00028	ethylbenzene		0.001875	5.783	0.00032			
xylenes		0.004254	6.991	0.00061	xylenes		0.005806	4.763	0.00122	xylenes		0.008195	5.783	0.00142			
cumene		1.39E-04	6.991	0.00002	cumene		1.95E-04	4.763	0.00004	cumene		2.81E-04	5.783	0.00005			
naphthalene		5.06E-06	6.991	0.00000	naphthalene		7.64E-06	4.763	0.00000	naphthalene		1.19E-05	5.783	0.00000			
Liquid Mole Fraction Eq. 40-4 x _i = (Z _{Li} M _i)/M _i				Liquid Mole Fraction Eq. 40-4 x _i = (Z _{Li} M _i)/M _i				Liquid Mole Fraction Eq. 40-4 x _i = (Z _{Li} M _i)/M _i									
		Z _{Li}	M _i	M _i	X _i			Z _{Li}	M _i	M _i	X _i			Z _{Li}	M _i	M _i	X _i
hexane		0.01	96	86.18	0.01114	hexane		0.01	92	86.18	0.01068	hexane		0.01	92	86.18	0.01068
benzene		0.018	96	78.11	0.02212	benzene		0.018	92	78.11	0.02120	benzene		0.018	92	78.11	0.02120
2,2,4 TMP		0.04	96	114.23	0.03362	2,2,4 TMP		0.04	92	114.23	0.03222	2,2,4 TMP		0.04	92	114.23	0.03222
toluene		0.07	96	92.14	0.07293	toluene		0.07	92	92.14	0.06989	toluene		0.07	92	92.14	0.06989
ethylbenzene		0.014	96	106.17	0.01266	ethylbenzene		0.014	92	106.17	0.01213	ethylbenzene		0.014	92	106.17	0.01213
xylenes		0.07	96	106.17	0.06329	xylenes		0.07	92	106.17	0.06066	xylenes		0.07	92	106.17	0.06066
cumene		0.005	96	120.19	0.00399	cumene		0.005	92	120.19	0.00383	cumene		0.005	92	120.19	0.00383
naphthalene		0.00415	96	128.17	0.00311	naphthalene		0.00415	92	128.17	0.00298	naphthalene		0.00415	92	128.17	0.00298
Component Vapor pressure P _{VA} =(0.019337)10 ⁴ *(A-(B/(TLA+C)))				Component Vapor pressure P _{VA} =(0.019337)10 ⁴ *(A-(B/(TLA+C)))				Component Vapor pressure P _{VA} =(0.019337)10 ⁴ *(A-(B/(TLA+C)))									
		A	B	C	P _{VA}			A	B	C	P _{VA}			A	B	C	P _{VA}
hexane		6.878	1171.5	224.37	1.5366	hexane		6.878	1171.5	224.37	1.9962	hexane		6.878	1171.5	224.37	2.5773
benzene		6.906	1211	220.79	0.9273	benzene		6.906	1211	220.79	1.2255	benzene		6.906	1211	220.79	1.6087
2,2,4 TMP		6.812	1257.8	220.74	0.4679	2,2,4 TMP		6.812	1257.8	220.74	0.6251	2,2,4 TMP		6.812	1257.8	220.74	0.8293
toluene		7.017	1377.6	222.64	0.2550	toluene		7.017	1377.6	222.64	0.3484	toluene		7.017	1377.6	222.64	0.4725
ethylbenzene		6.95	1419.3	212.61	0.0773	ethylbenzene		6.95	1419.3	212.61	0.1098	ethylbenzene		6.95	1419.3	212.61	0.1546
xylenes		7.009	1462.3	215.11	0.0672	xylenes		7.009	1462.3	215.11	0.0957	xylenes		7.009	1462.3	215.11	0.1351
cumene		6.929	1455.8	207.2	0.0349	cumene		6.929	1455.8	207.2	0.0509	cumene		6.929	1455.8	207.2	0.0735
naphthalene		7.146	1831.6	211.82	0.0016	naphthalene		7.146	1831.6	211.82	0.0026	naphthalene		7.146	1831.6	211.82	0.0040

MONTH July					MONTH August					MONTH September										
ROUTINE EMISSIONS CALCULATIONS			Symbol	Units	ROUTINE EMISSIONS CALCULATIONS			Symbol	Units	ROUTINE EMISSIONS CALCULATIONS			Symbol	Units						
Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	1,023.42 0.51	lb/month tons/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	999.16 0.50	lb/month tons/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	1,590.83 0.80	lb/month tons/month			
Product Type				Gasoline - RVP 9		Product Type				Gasoline - RVP 9		Product Type				Gasoline - RVP 15				
Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month	Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month	Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month			
Vapor Molecular weight			M _v	68.00		Vapor Molecular weight			M _v	68.00		Vapor Molecular weight			M _v	60.15				
Vapor Pressure Equation Constant A			A	11.76		Vapor Pressure Equation Constant A			A	11.76		Vapor Pressure Equation Constant A			A	11.60				
Vapor Pressure Equation Constant B			B	5315.06	°R	Vapor Pressure Equation Constant B			B	5315.06	°R	Vapor Pressure Equation Constant B			B	4937.93	°R			
Daily total solar insolation on a horizontal surface			I	1904.0	Btu/ft ² -day	Daily total solar insolation on a horizontal surface			I	1685.0	Btu/ft ² -day	Daily total solar insolation on a horizontal surface			I	1320.0	Btu/ft ² -day			
Average Daily Ambient Temperature Eq. 1-30						Average Daily Ambient Temperature Eq. 1-30						Average Daily Ambient Temperature Eq. 1-30								
TAA = ((TAX+TAN)/2)			T _{AA}	533.90	°R	TAA = ((TAX+TAN)/2)			T _{AA}	533.20	°R	TAA = ((TAX+TAN)/2)			T _{AA}	526.15	°R			
Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	541.10	°R	Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	540.10	°R	Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	533.40	°R			
Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	526.70	°R	Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	526.30	°R	Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	518.90	°R			
Liquid Bulk Temperature Eq 1-31:						Liquid Bulk Temperature Eq 1-31:						Liquid Bulk Temperature Eq 1-31:								
TB = TAA + 0.003 αs I			T _B	535.33		TB = TAA + 0.003 αs I			T _B	534.46		TB = TAA + 0.003 αs I			T _B	527.14				
Average Daily Liquid Surface Temperature Eq. 1-28						Average Daily Liquid Surface Temperature Eq. 1-28						Average Daily Liquid Surface Temperature Eq. 1-28								
TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	536.80	°R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	535.77	°R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	528.16	°R			
True Vapor Pressure Eq. 1-25:						True Vapor Pressure Eq. 1-25:						True Vapor Pressure Eq. 1-25:								
PvA = exp(A-(B/TLA))			P _{VA}	6.391	psia	PvA = exp(A-(B/TLA))			P _{VA}	6.270	psia	PvA = exp(A-(B/TLA))			P _{VA}	9.494	psia			
Vapor pressure function Eq. 2-4:						Vapor pressure function Eq. 2-4:						Vapor pressure function Eq. 2-4:								
P*=P _{VA} /P _A /(1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.142	NA	P*=P _{VA} /P _A /(1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.138	NA	P*=P _{VA} /P _A /(1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.254	NA			
Rim Seal Losses Eq. 2-3:						Rim Seal Losses Eq. 2-3:						Rim Seal Losses Eq. 2-3:								
L _R = ((K _{RA} + K _{RB} √V')DP* M _v K _v)/12 months			L _R	180.00	lb/month	L _R = ((K _{RA} + K _{RB} √V')DP* M _v K _v)/12 months			L _R	175.49	lb/month	L _R = ((K _{RA} + K _{RB} √V')DP* M _v K _v)/12 months			L _R	285.32	lb/month			
Withdrawal losses Eq. 2-19:						Withdrawal losses Eq. 2-19:						Withdrawal losses Eq. 2-19:								
L _W =[((0.943)QCsw _v)/D]*[1+(N _v F _v /D)]			L _W	53.69	lb/month	L _W =[((0.943)QCsw _v)/D]*[1+(N _v F _v /D)]			L _W	53.69	lb/month	L _W =[((0.943)QCsw _v)/D]*[1+(N _v F _v /D)]			L _W	53.69	lb/month			
Deck Fitting Losses Eq.2-13:						Deck Fitting Losses Eq.2-13:						Deck Fitting Losses Eq.2-13:								
L _F = F _F P* M _v K _v			LF	348.74	lb/month	L _F = F _F P* M _v K _v			LF	340.02	lb/month	L _F = F _F P* M _v K _v			LF	552.80	lb/month			
Deck Seam Losses Eq. 2-18:						Deck Seam Losses Eq. 2-18:						Deck Seam Losses Eq. 2-18:								
L _D = K _D S _D D ² P*M _v K _v /12 months			LD	440.99	lb/month	L _D = K _D S _D D ² P*M _v K _v /12 months			LD	429.96	lb/month	L _D = K _D S _D D ² P*M _v K _v /12 months			LD	699.02	lb/month			
HAPS Speciation							HAPS Speciation							HAPS Speciation						
Product - select from list				Gasoline		Product - select from list				Gasoline		Product - select from list				Gasoline				
Total HAP Monthly Emissions				44.017	lb/month	Total HAP Monthly Emissions				42.954	lb/month	Total HAP Monthly Emissions				43.782	lb/month			
Individual HAP Monthly Emissions			Eq. 40-2 L _{Ti} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W			Individual HAP Monthly Emissions			Eq. 40-2 L _{Ti} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W			Individual HAP Monthly Emissions			Eq. 40-2 L _{Ti} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W					
				L _{Ti}						L _{Ti}						L _{Ti}				
			hexane	6.5666	lb/month				hexane	6.3814	lb/month				hexane	6.6761	lb/month			
			benzene	7.7981	lb/month				benzene	7.5777	lb/month				benzene	7.8279	lb/month			
			2,2,4 TMP	10.0167	lb/month				2,2,4 TMP	9.7550	lb/month				2,2,4 TMP	9.9816	lb/month			
			toluene	11.6942	lb/month				toluene	11.4137	lb/month				toluene	11.5149	lb/month			
			ethylbenzene	1.2807	lb/month				ethylbenzene	1.2602	lb/month				ethylbenzene	1.2533	lb/month			
			xylenes	6.0737	lb/month				xylenes	5.9833	lb/month				xylenes	5.9483	lb/month			
			cumene	0.3595	lb/month				cumene	0.3557	lb/month				cumene	0.3530	lb/month			
			naphthalene	0.2271	lb/month				naphthalene	0.2269	lb/month				naphthalene	0.2266	lb/month			
Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v							Vapor Weight Concentrations Eq. 40- Z _{vi} = y _i M _i / M _v							Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v						
	M _i	M _v	Z _{vi}				M _i	M _v	Z _{vi}				M _i	M _v	Z _{vi}					
hexane	86.18	68	0.00622			hexane	86.18	68	0.00618			hexane	86.18	60	0.00399					
benzene	78.11	68	0.00704			benzene	78.11	68	0.00699			benzene	78.11	60	0.00446					
2,2,4 TMP	114.23	68	0.00811			2,2,4 TMP	114.23	68	0.00805			2,2,4 TMP	114.23	60	0.00510					
toluene	92.14	68	0.00818			toluene	92.14	68	0.00810			toluene	92.14	60	0.00505					
ethylbenzene	106.17	68	0.00055			ethylbenzene	106.17	68	0.00054			ethylbenzene	106.17	60	0.00033					
xylenes	106.17	68	0.00239			xylenes	106.17	68	0.00235			xylenes	106.17	60	0.00142					
cumene	120.19	68	0.00009			cumene	120.19	68	0.00009			cumene	120.19	60	0.00005					
naphthalene	128.17	68	4.41E-06			naphthalene	128.17	68	4.30E-06			naphthalene	128.17	60	2.42E-06					
Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}							Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}							Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}						
	P _i = P _{VA} (X _i)	P _{VA}	y _i				P _i = P _{VA} (X _i)	P _{VA}	y _i				P _i = P _{VA} (X _i)	P _{VA}	y _i					
hexane	0.031357	6.391	0.00491			hexane	0.030584	6.270	0.00488			hexane	0.026464	9.494	0.00279					
benzene	0.039198	6.391	0.00613			benzene	0.038170	6.270	0.00609			benzene	0.032633	9.494	0.00344					
2,2,4 TMP	0.030873	6.391	0.00483			2,2,4 TMP	0.030033	6.270	0.00479			2,2,4 TMP	0.025477	9.494	0.00268					
toluene	0.038599	6.391	0.00604			toluene	0.037467	6.270	0.00598			toluene	0.031273	9.494	0.00329					
ethylbenzene	0.002233	6.391	0.00035			ethylbenzene	0.002160	6.270	0.00034			ethylbenzene	0.001755	9.494	0.00018					
xylenes	0.009773	6.391	0.00153			xylenes	0.009450	6.270	0.00151			xylenes	0.007662	9.494	0.00081					
cumene	3.39E-04	6.391	0.00005			cumene	3.27E-04	6.270	0.00005			cumene	2.61E-04	9.494	0.00003					
naphthalene	1.50E-05	6.391	0.00000			naphthalene	1.43E-05	6.270	0.00000			naphthalene	1.08E-05	9.494	0.00000					
Liquid Mole Fraction Eq. 40-4 x _i = (Z _i M _v)/M _i							Liquid Mole Fraction Eq. 40-4 x _i = (Z _i M _v)/M _i							Liquid Mole Fraction Eq. 40-4 x _i = (Z _i M _v)/M _i						
	Z _{Li}	M _L	M _i	X _i			Z _{Li}	M _L	M _i	X _i			Z _{Li}	M _L	M _i	X _i				
hexane	0.01	92	86.18	0.01068		hexane	0.01	92	86.18	0.01068		hexane	0.01	96	86.18	0.01114				
benzene	0.018	92	78.11	0.02120		benzene	0.018	92	78.11	0.02120		benzene	0.018	96	78.11	0.02212				
2,2,4 TMP	0.04	92	114.23	0.03222		2,2,4 TMP	0.04	92	114.23	0.03222		2,2,4 TMP	0.04	96	114.23	0.03362				
toluene	0.07	92	92.14	0.06989		toluene	0.07	92	92.14	0.06989		toluene	0.07	96	92.14	0.07293				
ethylbenzene	0.014	92	106.17	0.01213		ethylbenzene	0.014	92	106.17	0.01213		ethylbenzene	0.014	96	106.17	0.01266				
xylenes	0.07	92	106.17	0.06066		xylenes	0.07	92	106.17	0.06066		xylenes	0.07	96	106.17	0.06329				
cumene	0.005	92	120.19	0.00383		cumene	0.005	92	120.19	0.00383		cumene	0.005	96	120.19	0.00399				
naphthalene	0.00415	92	128.17	0.00298		naphthalene	0.00415	92	128.17	0.00298		naphthalene	0.00415	96	128.17	0.00311				
Component Vapor pressure P _{VAi} =(0.019337)10 ⁴ (A-(B/(TLA+C)))							Component Vapor pressure P _{VAi} =(0.019337)10 ⁴ (A-(B/(TLA+C)))							Component Vapor pressure P _{VAi} =(0.019337)10 ⁴ (A-(B/(TLA+C)))						
	A	B	C	P _{VAi}			A	B	C	P _{VAi}			A	B	C	P _{VAi}				
hexane	6.878	1171.5	224.37	2.9373		hexane	6.878	1171.5	224.37	2.8649		hexane	6.878	1171.5	224.37	2.3757				
benzene	6.906	1211	220.79	1.8489		benzene	6.906	1211	220.79	1.8004		benzene	6.906	1211	220.79	1.4751				
2,2,4 TMP	6.812	1257.8	220.74	0.9583		2,2,4 TMP	6.812	1257.8	220.74	0.9322		2,2,4 TMP	6.812	1257.8	220.74	0.7579				
toluene	7.017	1377.6	222.64	0.5523		toluene	7.017	1377.6	222.64	0.5361		toluene	7.017	1377.6	222.64	0.4288				
ethylbenzene	6.95	1419.3	212.61	0.1841		ethylbenzene	6.95	1419.3	212.61	0.1781		ethylbenzene	6.95	1419.3	212.61	0.1387				
xylenes	7.009	1462.3	215.11	0.1611		xylenes	7.009	1462.3	215.11	0.1558		xylenes	7.009	1462.3	215.11	0.1211				
cumene	6.929	1455.8	207.2	0.0887		cumene	6.929	1455.8	207.2	0.0856		cumene	6.929	1455.8	207.2	0.0654				
naphthalene	7.146	1831.6	211.82	0.0050		naphthalene	7.146	1831.6	211.82	0.0048		naphthalene	7.146	1831.6	211.82	0.0035				

MONTH October				MONTH November				MONTH December													
ROUTINE EMISSIONS CALCULATIONS			Symbol	Units	ROUTINE EMISSIONS CALCULATIONS			Symbol	Units	ROUTINE EMISSIONS CALCULATIONS			Symbol	Units							
Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	1,152.36	lb/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	902.31	lb/month	Total VOC Losses (Eq.2-1 & 2-2: L _T = L _R +L _W +L _F +L _D)			LT	712.66	lb/month				
				0.58	tons/month					0.45	tons/month					0.36	tons/month				
Product Type				Gasoline - RVP 15		Product Type			Gasoline - RVP 15		Product Type			Gasoline - RVP 15							
Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month	Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month	Monthly Throughput (only change if actual is known)			Q _{month}	892,857.14	barrels/month				
Vapor Molecular weight			M _v	60.15		Vapor Molecular weight			M _v	60.15		Vapor Molecular weight			M _v	60.15					
Vapor Pressure Equation Constant A			A	11.60		Vapor Pressure Equation Constant A			A	11.60		Vapor Pressure Equation Constant A			A	11.60					
Vapor Pressure Equation Constant B			B	4937.93	°R	Vapor Pressure Equation Constant B			B	4937.93	°R	Vapor Pressure Equation Constant B			B	4937.93	°R				
Daily total solar insolation on a horizontal surface			I	948.0	Btu/ft ² -day	Daily total solar insolation on a horizontal surface			I	621.0	Btu/ft ² -day	Daily total solar insolation on a horizontal surface			I	501.0	Btu/ft ² -day				
Average Daily Ambient Temperature Eq. 1-30						Average Daily Ambient Temperature Eq. 1-30						Average Daily Ambient Temperature Eq. 1-30									
TAA = ((TAX+TAN)/2)			T _{AA}	514.75	°R	TAA = ((TAX+TAN)/2)			T _{AA}	505.35	°R	TAA = ((TAX+TAN)/2)			T _{AA}	495.50	°R				
Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	522.40	°R	Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	512.10	°R	Average daily maximum ambient temperature, Table 7.1-7			T _{AX}	501.80	°R				
Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	507.10	°R	Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	498.60	°R	Average daily minimum ambient temperature, Table 7.1-7			T _{AN}	489.20	°R				
Liquid Bulk Temperature Eq 1-31:						Liquid Bulk Temperature Eq 1-31:						Liquid Bulk Temperature Eq 1-31:									
TB = TAA + 0.003 αs I			T _B	515.46		TB = TAA + 0.003 αs I			T _B	505.82		TB = TAA + 0.003 αs I			T _B	495.88					
Average Daily Liquid Surface Temperature Eq. 1-28						Average Daily Liquid Surface Temperature Eq. 1-28						Average Daily Liquid Surface Temperature Eq. 1-28									
TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	516.20	°R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	506.30	°R	TLA = 0.3*TAA + 0.7*TB + 0.004*α*I			T _{LA}	496.26	°R				
True Vapor Pressure Eq. 1-25:						True Vapor Pressure Eq. 1-25:						True Vapor Pressure Eq. 1-25:									
PvA = exp(A-(B/TLA))			P _{VA}	7.644	psia	PvA = exp(A-(B/TLA))			P _{VA}	6.340	psia	PvA = exp(A-(B/TLA))			P _{VA}	5.205	psia				
Vapor pressure function Eq. 2-4:						Vapor pressure function Eq. 2-4:						Vapor pressure function Eq. 2-4:									
P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.182	NA	P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.140	NA	P*=P _{VA} /P _A /((1+(1-(P _{VA} /P _A)) ^{0.5}) ²			P*	0.109	NA				
Rim Seal Losses Eq. 2-3:						Rim Seal Losses Eq. 2-3:						Rim Seal Losses Eq. 2-3:									
L _R = ((K _{RA} + K _{RB} V ³)/DP* M _v K _v)/12 months			L _R	203.93	lb/month	L _R = ((K _{RA} + K _{RB} V ³)/DP* M _v K _v)/12 months			L _R	157.52	lb/month	L _R = ((K _{RA} + K _{RB} V ³)/DP* M _v K _v)/12 months			L _R	122.31	lb/month				
Withdrawal losses Eq. 2-19:						Withdrawal losses Eq. 2-19:						Withdrawal losses Eq. 2-19:									
L _W =[((0.943)QCsw _v)/D]*[1+(N _f F _v /D)]			L _W	53.69	lb/month	L _W =[((0.943)QCsw _v)/D]*[1+(N _f F _v /D)]			L _W	53.69	lb/month	L _W =[((0.943)QCsw _v)/D]*[1+(N _f F _v /D)]			L _W	53.69	lb/month				
Deck Fitting Losses Eq.2-13:						Deck Fitting Losses Eq.2-13:						Deck Fitting Losses Eq.2-13:									
L _F = F _F P*M _v K _v			LF	395.11	lb/month	L _F = F _F P*M _v K _v			LF	305.19	lb/month	L _F = F _F P*M _v K _v			LF	236.98	lb/month				
Deck Seam Losses Eq. 2-18:						Deck Seam Losses Eq. 2-18:						Deck Seam Losses Eq. 2-18:									
L _D = K _D S _D D ² P*M _v K _v /12 months			LD	499.63	lb/month	L _D = K _D S _D D ² P*M _v K _v /12 months			LD	385.92	lb/month	L _D = K _D S _D D ² P*M _v K _v /12 months			LD	299.67	lb/month				
HAPS Speciation						HAPS Speciation						HAPS Speciation									
Product - select from list				Gasoline		Product - select from list				Gasoline		Product - select from list				Gasoline					
Total HAP Monthly Emissions				32.145		lb/month	Total HAP Monthly Emissions				26.036		lb/month	Total HAP Monthly Emissions				21.791		lb/month	
Individual HAP Monthly Emissions			Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W				Individual HAP Monthly Emissions			Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W				Individual HAP Monthly Emissions			Eq. 40-2 L _{T1} =Z _{vi} (L _R + L _F + L _D) + Z _{Li} L _W				
			L _{T1}						L _{T1}												
	hexane	4.5422	lb/month						hexane	3.3897	lb/month				hexane	2.5659	lb/month				
	benzene	5.3540	lb/month						benzene	4.0368	lb/month				benzene	3.1091	lb/month				
	2,2,4 TMP	7.0933	lb/month						2,2,4 TMP	5.5701	lb/month				2,2,4 TMP	4.5078	lb/month				
	toluene	8.5268	lb/month						toluene	6.9832	lb/month				toluene	5.9288	lb/month				
	ethylbenzene	1.0465	lb/month						ethylbenzene	0.9433	lb/month				ethylbenzene	0.8752	lb/month				
	xylenes	5.0412	lb/month						xylenes	4.5897	lb/month				xylenes	4.2928	lb/month				
	cumene	0.3166	lb/month						cumene	0.2989	lb/month				cumene	0.2875	lb/month				
	naphthalene	0.2248	lb/month						naphthalene	0.2240	lb/month				naphthalene	0.2235	lb/month				
Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v						Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v						Vapor Weight Concentrations Eq. 40-6 Z _{vi} = y _i M _i / M _v									
	M _i	M _v	Z _{vi}						M _i	M _v	Z _{vi}				M _i	M _v	Z _{vi}				
	hexane	86.18	60	0.00365					hexane	86.18	60	0.00336				hexane	86.18	60	0.00308		
	benzene	78.11	60	0.00399					benzene	78.11	60	0.00362				benzene	78.11	60	0.00325		
	2,2,4 TMP	114.23	60	0.00450					2,2,4 TMP	114.23	60	0.00403				2,2,4 TMP	114.23	60	0.00358		
	toluene	92.14	60	0.00434					toluene	92.14	60	0.00380				toluene	92.14	60	0.00329		
	ethylbenzene	106.17	60	0.00027					ethylbenzene	106.17	60	0.00023				ethylbenzene	106.17	60	0.00019		
	xylenes	106.17	60	0.00117					xylenes	106.17	60	0.00098				xylenes	106.17	60	0.00081		
	cumene	120.19	60	0.00004					cumene	120.19	60	0.00004				cumene	120.19	60	0.00003		
	naphthalene	128.17	60	1.76E-06					naphthalene	128.17	60	1.33E-06				naphthalene	128.17	60	9.84E-07		
Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}						Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}						Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}									
	P _i = P _{VA} (x _i)	P _{VA}	y _i						P _i = P _{VA} (x _i)	P _{VA}	y _i				P _i = P _{VA} (x _i)	P _{VA}	y _i				
	hexane	0.019449	7.644	0.00254					hexane	0.014875	6.340	0.00235				hexane	0.011186	5.205	0.00215		
	benzene	0.023506	7.644	0.00308					benzene	0.017664	6.340	0.00279				benzene	0.013033	5.205	0.00250		
	2,2,4 TMP	0.018118	7.644	0.00237					2,2,4 TMP	0.013463	6.340	0.00212				2,2,4 TMP	0.009817	5.205	0.00189		
	toluene	0.021656	7.644	0.00283					toluene	0.015726	6.340	0.00248				toluene	0.011191	5.205	0.00215		
	ethylbenzene	0.001162	7.644	0.00015					ethylbenzene	0.000811	6.340	0.00013				ethylbenzene	0.000553	5.205	0.00011		
	xylenes	0.005056	7.644	0.00066					xylenes	0.003518	6.340	0.00055				xylenes	0.002391	5.205	0.00046		
	cumene	1.68E-04	7.644	0.00002					cumene	1.14E-04	6.340	0.00002				cumene	7.52E-05	5.205	0.00001		
	naphthalene	6.32E-06	7.644	0.00000					naphthalene	3.96E-06	6.340	0.00000				naphthalene	2.40E-06	5.205	0.00000		
Liquid Mole Fraction Eq. 40-4 x _i = (Z _{vi} M _i)/M _i						Liquid Mole Fraction Eq. 40-4 x _i = (Z _{vi} M _i)/M _i						Liquid Mole Fraction Eq. 40-4 x _i = (Z _{vi} M _i)/M _i									
	Z _{Li}	M _i	M _i	X _i					Z _{Li}	M _i	M _i	X _i				Z _{Li}	M _i	M _i	X _i		
	hexane	0.01	96	86.18	0.01114				hexane	0.01	96	86.18	0.01114				hexane	0.01	96	86.18	0.01114
	benzene	0.018	96	78.11	0.02212				benzene	0.018	96	78.11	0.02212				benzene	0.018	96	78.11	0.02212
	2,2,4 TMP	0.04	96	114.23	0.03362				2,2,4 TMP	0.04	96	114.23	0.03362				2,2,4 TMP	0.04	96	114.23	0.03362
	toluene	0.07	96	92.14	0.07293				toluene	0.07	96	92.14	0.07293				toluene	0.07	96	92.14	0.07293
	ethylbenzene	0.014	96	106.17																	

LANDING PTE CALCULATIONS									
Symbol		Units		HAPS Speciation					
Total Landing Losses (Eq.3-1 $L_{TL} = L_{SL}+L_{FL}$)		L_{TL}	2,142.68	lb/event	Product - select from list		Gasoline		
			1.071	ton/event	Total HAP Emissions		68.109		
					Individual HAP Emissions				
Product in tank during landing:		Gasoline - RVP 9							
Month the landing occurred:		July							
Number of days the tank stays idle		n_d	3	days			L_{TL}		
Height of floating roof deck, h_d (ft) (assume 3 ft if unknown)		h_d	2.75	ft			hexane		13.10
Height of the stock liquid		h_l	0.250	ft			benzene		14.78
Full heel, Partial heel or Drain Dry?			Partial Heel				2,2,4 TMP		16.98
Flat or Cone Bottom Tank?			Flat				toluene		17.01
							ethylbenzene		1.12
							xylenes		4.91
							cumene		0.19
							naphthalene		0.01
Standing Idle Losses Eq. 3-7 $L_{SL} = n_d * KE * ((P_{VA} * V_v / R * T_v)) * M_v * K_s$		L_{SL}	759.55	lb					
Number of days the tank stays idle		n_d	3		Vapor Weight Concentrations Eq. 40-6 $Z_{vi} = y_i M_i / M_v$				
Vapor space expansion factor, per day		K_E	0.1650		M_i		M_v	Z_{vi}	
True vapor pressure of stock liquid (avg. ambient temp. of month landing occurred)		P_{VA}	6.056	psia	hexane		86.18	68	0.00612
Volume of the vapor space		V_v	38484.51	ft ³	benzene		78.11	68	0.00690
Ideal gas constant		R	10.731	(psia-ft3)/(lb-mole degR)	2,2,4 TMP		114.23	68	0.00792
Average vapor temperature (assumed to be equal to ground temperature - ave		$T_v (T_{AA})$	533.90	°R	toluene		92.14	68	0.00794
Stock vapor molecular weight		M_v	68	lb/lb-mol	ethylbenzene		106.17	68	0.00052
Saturation factor		K_s	0.55		xylenes		106.17	68	0.00229
					cumene		120.19	68	0.00009
					naphthalene		128.17	68	4.12E-06
Filling Losses Eq. 3-18 $L_{FL} = (P_{VA} V_v / R T_v) M_v (C_w S)$		L_{FL}	1,383.13	lb	Vapor Mole Fraction Eq. 40-5 $y_i = P_i / P_{VA}$				
True vapor pressure of stock liquid (avg. ambient temp. of month landing occurred)		P_{VA}	6.056	psia	$P_i = P_{VA}(x_i)$		P_{VA}	y_i	
Volume of the vapor space		V_v	38484.51	ft ³	hexane		0.029225	6.056	0.00483
Ideal gas constant		R	10.731	(psia-ft3)/(lb-mole degR)	benzene		0.036369	6.056	0.00601
Average vapor temperature (average ambient temp of the month)		$T_v (T_{AA})$	533.9	°R	2,2,4 TMP		0.028562	6.056	0.00472
Stock vapor molecular weight		M_v	68	lb/lb-mole	toluene		0.035492	6.056	0.00586
Filling saturation correction factor for wind (1.0 for IFT and DEFT)		C_{wf}	1		ethylbenzene		0.002033	6.056	0.00034
Filling Saturation Factor (0.60 for full heel, 0.50 for partial heel, 0.15 for drain c		S	0.5		xylenes		0.008889	6.056	0.00147
					cumene		3.07E-04	6.056	0.00005
					naphthalene		1.32E-05	6.056	0.00000
Average Ambient Temperature during Month TAA = (TAX+TAN) /2		TAA	533.9	°R	Liquid Mole Fraction Eq. 40-4 $x_i = (Z_i M_i) / M_i$				
Average daily monthly maximum ambient temperature, Table 7.1-2		TAX	541.1	°R	Z_{Li}		M_{Li}	M_i	
Average daily monthly minimum ambient temperature, Table 7.1-2		TAN	526.7	°R	hexane		0.010	92	0.01068
					benzene		0.018	92	0.02120
Product Vapor Pressure		P_{VA}	6.056	psia	2,2,4 TMP		0.040	92	0.03222
$P_{VA} = \exp(A-(B/TAA))$ (modified Eq 1-25 where TLA= TAA)		A	11.756		toluene		0.070	92	0.06989
Vapor Pressure Equation Constant A (Table 7.1-2)		B	5,315.1	°R	ethylbenzene		0.014	92	0.01213
Vapor Pressure Equation Constant B (Table 7.1-2)		TAA	533.9	°R	xylenes		0.070	92	0.06066
Average ambien temperature during month					cumene		0.005	92	0.00383
					naphthalene		0.004	92	0.00298
Vapor Space Expansion Factor (Eq. 1-5: $(\Delta T_v / TLA) * ((\Delta P_v - \Delta P_B) / (P_A - P_vA))$		KE	0.1650	per day	Component Vapor pressure $P_{VA} = (0.019337) 10^{(A-(B/(TLA+C)))}$				
Average Daily Vapor Temperature Range		ΔT_v	19.60	°R	A		B	C	P_{VA}
Average Daily Vapor Pressure Range		ΔP_v	1.1074	psi	hexane		6.878	1171.5	224.37
Breather Vent Pressure Setting Range ($\Delta P_B = 0$)		ΔP_B	0.0000	psi	benzene		6.906	1211	220.79
Vapor Pressure at Avg Daily Liq Surface Temp		P_vA	6.0562	psia	2,2,4 TMP		6.812	1257.8	220.74
Average Daily Liquid Surface Temperature (TLA=TAA)		TAA	533.90	°R	toluene		7.017	1377.6	222.64
Atmospheric Pressure		P_A	14.69	psia	ethylbenzene		6.95	1419.3	212.61
					xylenes		7.009	1462.3	215.11
					cumene		6.929	1455.8	207.2
					naphthalene		7.146	1831.6	211.82
Average Daily Vapor Temperature Range (ΔT_v)		ΔT_v	19.60	°R	Drain Dry Tank Standing Losses				
Equation 1-7 ($\Delta T_v = 0.7 \Delta T_A + 0.02 \alpha I$)		ΔT_A	14.4	°R	Standing Losses for Drain Dry, minimum of Eqn 3-13 and 3-14		L_{SL}	543.09	
Average daily ambient temperature range - Equation 1-11 ($\Delta T_A = TAX - TAN$)		α	0.25		Equation 3-13, $L_{SL} = 0.0063 W_i (P_i) D^{2/4}$		$L_{SL} \text{ (Eqn 3-13)}$	543.09	
Average tank surface solar absorptance, dimensionless, Table 7.1-6		I	1904	Btu/ft ² -day	Average organic liquid density		W_i	5.6	
Daily total solar insolation on a horizontal surface		TAX	541.10	°R	Tank Diameter		D	140.00	
Average daily maximum ambient temperature for the month		TAN	526.70	°R	Equation 3-14, $L_{SLmax} = 0.60 * (P_{VA} V_v / (R T_v)) M_v$				
Average daily minimum ambient temperature for the month					True vapor pressure of stock liquid (avg. ambient temp. of month landing occurred)		P_{VA}	6.056	
Average Daily Vapor Pressure Range (ΔP_v)		ΔP_v	1.107	psia	Volume of the vapor space		V_v	38484.51	
Equation 1-9: $\Delta P_v = P_{VX} - P_{VN}$		P_{VX}	6.63	psia	Ideal gas constant		R	10.731	
Vapor pressure Eq. 1-25: $P_{VX} = \exp[A-(B/TLX)]$		P_{VN}	5.52	psia	Average vapor temperature (average ambient temp of the month)		$T_v (T_{AA})$	533.9	
Vapor pressure Eq. 1-25: $P_{VN} = \exp[A-(B/TLN)]$		TLX	538.80	°R	Stock vapor molecular weight		M_v	68	
Average daily max liquid surface temp TLX = TAA + 0.25 ΔT_v		TLN	529.00	°R	Height of Vapor Space Calculation for Cone Bottom				
Average daily min liquid surface temp TLN = TAA - 0.25 ΔT_v		A	11.756		Height of vapor space under landed deck, ($h_u + sD/6$)- [(volume of heel/($\pi D^2/4$)))+(0.01 ft)		s	0.02	
Vapor Pressure Equation Constant A		B	5,315		Tank cone bottom slope		D	140	
Vapor Pressure Equation Constant B		TAA	533.90		Diameter		h_u	3	
Average Daily Liquid Surface Temperature (TLA=TAA for landings)		ΔT_v	19.60		Deck leg height			4405	
Average Daily Vapor Temperature Range					Volume of heel, ($\pi D^2/12$)*(($sD/2-h_u$) ³)/($sD/2$) ²)		h_u	0.2	
Vapor Space Volume $V_v = h_u ((\pi D)^2/4)$		V_v	38,484.51	ft ³	Vertical distance from bottom shell to the liquid surface in cone bottom			0.5	
Height of vapor space under landed deck (h_u , h_u , h_u)		h_u	2.50	ft	Effective height of cone-down bottom, sD/6 (Figure 7.1-23)			0.25	
Deck height		hd	2.75	ft	Height of liquid in bottom of cone				
Liquid height		hl	0.25	ft					
Vented Vapor Saturation Factor (Eq. 1-21: $K_s = 1/(1+0.053 * P_{VA} * H_{vo})$)		K_s	0.55						
Vapor Pressure at TAA for month		P_{VA}	6.056	psia					
Vapor Space Outage (Table 7.1-17 H_{vo} set to h_u)		H_{vo}	2.50	ft					

LANDING PTE CALCULATIONS									
Symbol		Units		HAPS Speciation					
				Product - select from list		Gasoline			
Total Landing Losses (Eq.3)	L _{TL}	2,396.91	lb/event	Total HAP Emissions		L _{TL} = L _{TL} * Z _{vi}		42.369	
		1.198		Individual HAP Emissions					
Product in tank during landing:		Gasoline - RVP 15						L _{Ti}	
Month the landing occurred:		October							
Number of days the tank stay	n _d	3	days			hexane		8.64	
Height of floating roof deck, h _f	h _f	2.75	ft			benzene		9.44	
Height of the stock liquid	h _l	0.250	ft			2,2,4 TMP		10.62	
Full heel, Partial heel or Drain Dry?		Partial heel				toluene		10.21	
Flat or Cone Bottom Tank?		Flat				ethylbenzene		0.63	
						xylenes		2.73	
						cumene		0.10	
						naphthalene		0.00	
Standing Idle Losses Eq. 3-7	L _{SL}	837.76	lb	Vapor Weight Concentrations Eq. 40-6		Z _{vi} = y _i M _i / M _v			
Number of days the tank stay	n _d	3							
Vapor space expansion factor	K _E	0.1778				M _i		M _v	
True vapor pressure of stock	P _{V,A}	7.441	psia					Z _{vi}	
Volume of the vapor space	V _v	38484.51	ft ³			hexane		86.18	
Ideal gas constant	R	10.731	(psia-ft ³)/(lb-mole degR)			benzene		78.11	
Average vapor temperature (°R)	T _v (T _{AA})	514.75	°R			2,2,4 TMP		114.23	
Stock vapor molecular weight	M _v	60	lb/lb-mol			toluene		92.14	
Saturation factor	K _S	0.50				ethylbenzene		106.17	
						xylenes		106.17	
						cumene		120.19	
						naphthalene		128.17	
Filling Losses Eq. 3-18 L _{FL}	L _{FL}	1,559.15	lb	Vapor Mole Fraction Eq. 40-5 y _i = P _i / P _{VA}					
True vapor pressure of stock	P _{V,A}	7.441	psia						
Volume of the vapor space	V _v	38484.51	ft ³			P _i = P _{V,i} (x _i)		P _{VA}	
Ideal gas constant	R	10.731	(psia-ft ³)/(lb-mole degR)					y _i	
Average vapor temperature (°R)	T _v (T _{AA})	514.75	°R			hexane		0.018716	
Stock vapor molecular weight	M _v	60	lb/lb-mole			benzene		0.022564	
Filling saturation correction factor	C _{MF}	1				2,2,4 TMP		0.017364	
Filling Saturation Factor (0.60)	S	0.5				toluene		0.020687	
						ethylbenzene		0.001104	
						xylenes		0.004800	
						cumene		1.59E-04	
						naphthalene		5.91E-06	
Average Ambient Temperature	TAA	514.75	°R	Liquid Mole Fraction Eq. 40-4 x _i = (Z _{Li} M _i)/M _L					
Average daily monthly maximum	TAX	522.4	°R			Z _{Li}		M _L	
Average daily monthly minimum	TAN	507.1	°R					M _i	
								X _i	
Product Vapor Pressure						hexane		0.010	
P _{VA} = exp(A-(B/TAA)) (modified)	P _{VA}	7.441	psia			benzene		0.018	
Vapor Pressure Equation Constant	A	11.600				2,2,4 TMP		0.040	
Vapor Pressure Equation Constant	B	4,937.9	°R			toluene		0.070	
Average ambient temperature	TAA	514.8	°R			ethylbenzene		0.014	
						xylenes		0.070	
						cumene		0.005	
						naphthalene		0.004	
Vapor Space Expansion Factor	KE	0.1778	per day	Component Vapor pressure P _{V,i} =(0.019337)10 ⁴ (A-(B/(TLA+C)))					
Average Daily Vapor Temperature	ΔT _v	15.45	°R			A		B	
Average Daily Vapor Pressure	ΔP _v	1.0716	psi					C	
Breather Vent Pressure Setting	ΔP _B	0.0000	psi					P _{V,i}	
Vapor Pressure at Avg Daily Temperature	P _{V,A}	7.4410	psia			hexane		6.878	
Average Daily Liquid Surface Temperature	TAA	514.75	°R			benzene		6.906	
Atmospheric Pressure	P _A	14.69	psia			2,2,4 TMP		6.812	
						toluene		7.017	
						ethylbenzene		6.95	
						xylenes		7.009	
						cumene		6.929	
						naphthalene		7.146	
Average Daily Vapor Temperature Range (ΔT _v)				Drain Dry Tank Standing Losses					
Equation 1-7 (ΔT _v = 0.7 ΔT _a)	ΔT _v	15.45	°R	Standing Losses for Drain Dry, minimum of Eqn 3-13 and 3-14		L _{SL}		0.00	
Average daily ambient temperature	ΔT _A	15.3	°R			L _{SL} (Eqn 3-13)		0.00	
Average tank surface solar absorptivity	α	0.25				W _i		5.6	
Daily total solar insolation on a horizontal surface	I	948	Btu/ft ² -day			D		0.00	
Average daily maximum ambient temperature	TAX	522.40	°R						
Average daily minimum ambient temperature	TAN	507.10	°R						
				Equation 3-13, L _{SL} = 0.0063W _i (P _i)D ² /4					
Average Daily Vapor Pressure Range (ΔP _v)				Average organic liquid density					
Equation 1-9: ΔP _v = P _{VX} - P _{VA}	ΔP _v	1.072	psia	Tank Diameter					
Vapor pressure Eq. 1-25; P _{VX}	P _{VX}	7.99	psia						
Vapor pressure Eq. 1-25; P _{VN}	P _{VN}	6.92	psia						
Average daily maximum liquid surface temperature	TLX	518.61	°R	Equation 3-14, L _{SL,max} = 0.60 * (P _{V,A} V _v /(RT _v))M _v		L _{SL} (Eqn 3-14)		1870.98	
Average daily minimum liquid surface temperature	TLN	510.89	°R	True vapor pressure of stock liquid (avg. ambient temp. or month landing occurs)		P _{V,A}		7.441	
Vapor Pressure Equation Constant	A	11.600		Volume of the vapor space		V _v		38484.51	
Vapor Pressure Equation Constant	B	4,938		Ideal gas constant					
Average Daily Liquid Surface Temperature	TAA	514.75	°R	Average vapor temperature (average ambient temp of the month)		R		10.731	
Average Daily Vapor Temperature	ΔT _v	15.45	°R	Stock vapor molecular weight		T _v (T _{AA})		514.75	
						M _v		60	
				Height of Vapor Space Calculation for Cone Bottom					
Vapor Space Volume V _v =h _v	V _v	38,484.51	ft ³	Height of vapor space under landed deck, (h _v + sD/6)- [(volume of heel(πD ² /4))+ (0.01 in/ 12 in)				2.95	
Height of vapor space under landed deck	h _v	2.50	ft	Tank cone bottom slope		s		0.02	
Deck height	hd	2.75	ft	Diameter		D		140	
Liquid height	hl	0.25	ft	Deck leg height		h _d		3	
				Volume of heel, (πD ² /12)*((sD/2-h _v) ³)/(sD/2) ²				4405	
				Vertical distance from bottom shell to the liquid surface in cone bottom		h _b		0.2	
Vented Vapor Saturation Factor	Ks	0.50		Effective height of cone-down bottom, sD/6 (Figure 7.1-23)				0.5	
Vapor Pressure at TAA for month	P _{V,A}	7.441	psia	Height of liquid in bottom of cone				0.25	
Vapor Space Outage (Table 7.1-23)	H _{vo}	2.50	ft						

LANDING PTE CALCULATIONS									
Symbol		Units		HAPS Speciation					
Total Landing Losses (Eq.3-1 $L_{TL} = L_{SL} + L_{FL}$)		L_{TL}	2,232.99	lb/event	Product - select from list		Gasoline		
			1.116	ton/event	Total HAP Emissions		$L_{TL} = L_{TL} \cdot Z_{vi}$		
					Individual HAP Emissions				
Product in tank during landing: Gasoline - RVP 15							L_{TL}		
Month the landing occurred: April									
Number of days the tank stays idle Height of floating roof deck, h_d (ft) (assume 3 ft if unknown) Height of the stock liquid Full heel, Partial heel or Drain Dry? Flat or Cone Bottom Tank?	n_d	3	days			hexane	7.69	lb/event	
	h_d	2.75	ft			benzene	8.32	lb/event	
	h_l	0.250	ft			TMP	9.30	lb/event	
		Partial Heel				toluene	8.82	lb/event	
		Flat				ethylbenzene	0.53	lb/event	
						xylenes	2.30	lb/event	
						cumene	0.08	lb/event	
						naphthalene	0.00	lb/event	
Standing Idle Losses Eq. 3-7 $L_{SL} = n_d \cdot KE \cdot ((P_{VA} \cdot V_v) / (R \cdot T_v)) \cdot M_v \cdot K_c$		L_{SL}	814.53	lb					
Number of days the tank stays idle		n_d	3		Vapor Weight Concentrations Eq. 4i $Z_{vi} = y_i M_i / M_v$				
Vapor space expansion factor, per day		K_E	0.1806		M_i M_v		Z_{vi}		
True vapor pressure of stock liquid (avg. ambient temp. of month landing occurs)		P_{VA}	6.696	psia	hexane		86.18	60	0.00344
Volume of the vapor space		V_v	38484.51	ft ³	benzene		78.11	60	0.00372
Ideal gas constant		R	10.731	(psia-ft3)/(lb-mole degR)	2,2,4 TMP		114.23	60	0.00417
Average vapor temperature (assumed to be equal to ground temperature - average)		$T_v (T_{AA})$	509.15	$^{\circ}R$	toluene		92.14	60	0.00395
Stock vapor molecular weight		M_v	60	lb/lb-mol	ethylbenzene		106.17	60	0.00024
Saturation factor		K_c	0.53		xylenes		106.17	60	0.00103
					cumene		120.19	60	0.00004
					naphthalene		128.17	60	1.44E-06
Filling Losses Eq. 3-18 $L_{FL} = (P_{VA} V_v / (RT_v)) M_v / (C_u S)$		L_{FL}	1,418.45	lb					
True vapor pressure of stock liquid (avg. ambient temp. of month landing occurs)		P_{VA}	6.696	psia	Vapor Mole Fraction Eq. 40-5 $y_i = P_i / P_{VA}$				
Volume of the vapor space		V_v	38484.51	ft ³	$P_i = P_{VA}(x_i)$		P_{VA}		
Ideal gas constant		R	10.731	(psia-ft3)/(lb-mole degR)	hexane		0.016091	6.696	0.00240
Average vapor temperature (average ambient temp of the month)		$T_v (T_{AA})$	509.15	$^{\circ}R$	benzene		0.019207	6.696	0.00287
Stock vapor molecular weight		M_v	60	lb/lb-mole	2,2,4 TMP		0.014688	6.696	0.00219
Filling saturation correction factor for wind (1.0 for IFT and DEFT)		C_{uf}	1		toluene		0.017272	6.696	0.00258
Filling Saturation Factor (0.60 for full heel, 0.50 for partial heel, 0.15 for drain		S	0.5		ethylbenzene		0.000901	6.696	0.00013
					xylenes		0.003913	6.696	0.00058
					cumene		1.27E-04	6.696	0.00002
					naphthalene		4.54E-06	6.696	0.00000
Average Ambient Temperature during Month TAA = (TAX+TAN) /2		TAA	509.15	$^{\circ}R$	Liquid Mole Fraction Eq. 40-4 $x_i = (Z_{Li} M_i) / M_L$				
Average daily monthly maximum ambient temperature, Table 7.1-2		TAX	516.8	$^{\circ}R$					
Average daily monthly minimum ambient temperature, Table 7.1-2		TAN	501.5	$^{\circ}R$					
Product Vapor Pressure					Z_{Li} M_L		M_i X_i		
$P_{VA} = \exp(A - (B/TAA))$ (modified Eq 1-25 where TLA= TAA)		P_{VA}	6.696	psia	hexane		0.010	96	86.18 0.01114
Vapor Pressure Equation Constant A (Table 7.1-2)		A	11.600		benzene		0.018	96	78.11 0.02212
Vapor Pressure Equation Constant B (Table 7.1-2)		B	4,937.9	$^{\circ}R$	2,2,4 TMP		0.040	96	114.23 0.03362
Average ambien temperature during month		TAA	509.2	$^{\circ}R$	toluene		0.070	96	92.14 0.07293
					ethylbenzene		0.014	96	106.17 0.01266
					xylenes		0.070	96	106.17 0.06329
					cumene		0.005	96	120.19 0.00399
					naphthalene		0.004	96	128.17 0.00311
Vapor Space Expansion Factor (Eq. 1-5: $(\Delta T_v / TLA) \cdot ((\Delta P_v - \Delta P_B) / (P_A - P_{VA}))$		KE	0.1806	per day	Component Vapor pressure $P_{VA} = (0.019337) 10^A (A - (B / (TLA + C)))$				
Average Daily Vapor Temperature Range		ΔT_v	18.16	$^{\circ}R$	A B		C P_{VA}		
Average Daily Vapor Pressure Range		ΔP_v	1.1588	psi	hexane		6.878	1171.5	224.37 1.4445
Breather Vent Pressure Setting Range ($\Delta P_B = 0$)		ΔP_B	0.0000	psi	benzene		6.906	1211	220.79 0.8682
Vapor Pressure at Avg Daily Liq Surface Temp		P_{VA}	6.6959	psia	2,2,4 TMP		6.812	1257.8	220.74 0.4369
Average Daily Liquid Surface Temperature (TLA=TAA)		TAA	509.15	$^{\circ}R$	toluene		7.017	1377.6	222.64 0.2368
Atmospheric Pressure		P_A	14.69	psia	ethylbenzene		6.95	1419.3	212.61 0.0712
					xylenes		7.009	1462.3	215.11 0.0618
					cumene		6.929	1455.8	207.2 0.0319
					naphthalene		7.146	1831.6	211.82 0.0015
Average Daily Vapor Temperature Range (ΔT_v)		ΔT_v	18.16	$^{\circ}R$	Drain Dry Tank Standing Losses				
Equation 1-7 ($\Delta T_v = 0.7 \Delta T_A + 0.02 \alpha I$)		ΔT_A	15.3	$^{\circ}R$	Standing Losses for Drain Dry, minimum of Eqn 3-13		L_{SL}	0.00	lb
Average daily ambient temperature range - Equation 1-11 ($\Delta T_A = TAX - TAN$)		α	0.25		Equation 3-13, $L_{SL} = 0.0063 W_i (P_i) D^2 / 4$		L_{SL} (Eqn 3-1)		
Average tank surface solar absorptance, dimensionless, Table 7.1-6		I	1490	Btu/ft ² -day	Average organic liquid density		W_i	5.6	lb/gal
Daily total solar insolation on a horizontal surface		TAX	516.80	$^{\circ}R$	Tank Diameter		D	0.00	ft
Average daily maximum ambient temperature for the month		TAN	501.50	$^{\circ}R$					
Average daily minimum ambient temperature for the month					Equation 3-14, $L_{SLmax} = 0.60 \cdot (P_{VA} V_v / (RT_v)) M_v$		L_{SL} (Eqn 3-1)		
Average Daily Vapor Pressure Range (ΔP_v)		ΔP_v	1.159	psia	True vapor pressure of stock liquid (avg. ambient temp. of month landing occurs)		P_{VA}	6.696	psia
Equation 1-9: $\Delta P_v = P_{VX} - P_{VN}$		P_{VX}	7.30	psia	Volume of the vapor space		V_v	38484.51	ft ³
Vapor pressure Eq. 1-25; $P_{VX} = \exp(A - (B / TLX))$		P_{VN}	6.14	psia	Ideal gas constant		R	10.731	(psia-ft3)/(lb-mole degR)
Vapor pressure Eq. 1-25; $P_{VN} = \exp(A - (B / TLN))$		TLX	513.69	$^{\circ}R$	Average vapor temperature (average ambient temp of the month)		$T_v (T_{AA})$	509.15	$^{\circ}R$
Average daily max liquid surface temp $TLX = TAA + 0.25 \Delta T_v$		TLN	504.61	$^{\circ}R$	Stock vapor molecular weight		M_v	60	lb/lb-mole
Average daily min liquid surface temp $TLN = TAA - 0.25 \Delta T_v$		A	11.600		Height of Vapor Space Calculation for Cone Bottom				
Vapor Pressure Equation Constant A		B	4,938		Height of vapor space under landed deck, $(h_d + sD/6) - [(volume of h$		h_v	2.50	ft
Vapor Pressure Equation Constant B		TAA	509.15		Tank cone bottom slope		s	0.02	ft/ft
Average Daily Vapor Temperature Range		ΔT_v	18.16		Diameter		D	140	ft
					Deck leg height		h_s	3	ft
					Volume of heel, $(\pi D^2 / 12) \cdot ((sD/2 - h_s)^3) / (sD/2)^2$			4405	ft3
Vapor Space Volume $V_v = h_v (PI) D^2 / 4$		K_s	0.53		Vertical distance from bottom shell to the liquid surface in		h_b	0.2	ft
Height of vapor space under landed deck ($h_v = h_d - h_l$)		P_{VA}	6.696	psia	Effective height of cone-down bottom, $sD/6$ (Figure 7.1-23)			0.5	ft
Deck height		H_{vo}	2.50	ft	Height of liquid in bottom of cone			0.25	ft
Liquid height									
Vented Vapor Saturation Factor (Eq. 1-21: $K_s = 1 / (1 + 0.053 \cdot P_{VA} \cdot H_{vo})$)									
Vapor Pressure at TAA for month									
Vapor Space Outage (Table 7.1-17 H_{vo} set to h_v)									

CLEANING PTE CALCULATIONS (WITH CONTROLLED VAPOR SPACE PURGE)											
Includes Landing (standing and filling losses) and Additional Purges associated with this cleaning event											
Symbol				Units		Symbol				Units	
Total Cleaning Losses LFV = LP+LCV+ LF+LS				LFV		2,427.64 lb/event 1.2138 ton/event					
Product in tank prior to cleaning				Gasoline - RVP 15							
Month the cleaning occurred:				October							
Calibration Gas				Propane (C3)							
Duration of the continued forced ventilation				n _{CV}		3		days		Standing Idle Losses Eq. 3-7 L _{SL} = n _d *KE*((P _{V,A} *V _v)/R*(T _v))*M _v *K _s	
Height of deck during cleaning (assume 6 ft if unknown)				h _d		5.75		ft		Vapor space expansion factor, per day	
Number of days standing idle before cleaning				n _d		3		days		True vapor pressure of stock liquid (avg. ambient temp. of month landing occu	
Height of the stock liquid				h _l		0.250		ft		Volume of the vapor space	
Average ventilation rate during continued forced ventilation				Q _V		12000		ft³/min		Ideal gas constant	
Hours per day of force ventilation				t _v		10		hrs/day		Average vapor temperature (average ambient temp of the month)	
Average LEL Reading				LEL		10		%		Stock vapor molecular weight	
LEL of Calibration Gas						2.1		%		Standing idle saturation factor	
Average vapor concentration by volume during continued forced ventilation				C _V		0.0021					
Calibration Gas Molecular Weight				M _{CG}		44.1		lb/lb-mole		Filling Losses Eq. 3-18 L _{FL} = (P _{V,A} V _v /RT _v)/M _v (C _u S)	
										True vapor pressure of stock liquid (avg. ambient temp. of month landing occu	
										Volume of the vapor space	
										Ideal gas constant	
										Average vapor temperature (average ambient temp of the month)	
										Stock vapor molecular weight	
										Filling saturation correction factor for wind (1.0 for IFT and DEFT)	
										Filling Saturation Factor (0.15 for drain dry)	
Vapor Space Purge Losses										Vapor Space Expansion Factor (Eq. 1-5: (ΔT _v /TLA)+[(ΔP _v -ΔP _B)/(P _A -P _{V,A}]	
Eq. 4-2 LP=(P _{V,A} *V _v /R*(T _v))/M _V *S				L _P		68.602				KE	
Saturation Factor (0.5 for IFR with a partial liquid heel)				S		0.5				0.1778 per day	
Ideal gas constant				R		10.731		(psia-R3)/(lb-m		ΔT _v	
Average temperature of the vapor space = average ambient temperature				T _v (T _{AA})		514.75		°R		15.45 °R	
True vapor pressure of the exposed volatile material in the tank				P _{V,A}		7.441		°R		ΔTA	
Volume of vapor space				V _V		84,665.92		ft³		α	
Stock vapor molecular weight				M _V		60		lb/lb-mol		I	
										TAX	
										TAN	
Continued Forced Ventilation Emissions											
L _{CV} = 60*Q _v *n _{CV} *t _v *C _v *(P _s *M _{CG})/(R*T _v)				L _{CV}		106.40				ΔP _v	
Average ventilation rate during continued forced ventilation				Q _V		12000		ft³/min		1.0716 psi	
Duration of continued forced ventilation, days				n _{CV}		3		days		Breather Vent Pressure Setting Range (ΔPB = 0)	
Daily period of forced ventilation				t _v		10		hrs/day		Vapor Pressure at Avg Daily Liq Surface Temp	
Average vapor concentration by volume during continued forced ventilation				C _V		0.0021				Average Daily Liquid Surface Temperature (TLA=TAA)	
Atmospheric pressure at the tank location				P _A		14.69				Atmospheric Pressure	
Calibration gas molecular weight				M _{CG}		44.1					
Average temperature of vapor below the floating roof = average ambient temperature				T _v (T _{AA})		514.75				Average Daily Vapor Temperature Range (ΔT _v)	
										Equation 1-7 (ΔTV = 0.7 ΔTA + 0.02 α I)	
										Average daily ambient temperature range - Equation 1-11 (ΔTA=TAX-TAN)	
										Average tank surface solar absorptance, dimensionless, Table 7.1-6	
										Daily total solar insolation on a horizontal surface	
										Average daily maximum ambient temperature for the month	
										Average daily minimum ambient temperature for the month	
								</			

HAPS Speciation															
Product type- select from list:		Gasoline													
Total HAP (lb/event): 42.913		Vapor Weight Concentrations			Vapor Mole Fraction			Liquid Mole Fraction				Component Vapor Pressure			
Individual HAPS		Eq. 40-6 ZVi = yiMi / MV			Eq. 40-5 yi = Pi / PVA			Eq. 40-4 xi = (ZLiML)/Mi				PVAi=(0.019337)10^(A-(B/(TLA+C)))			
Eq. 40-2 L _{TL} =Z _{vi} (L _i)	L _{TL} (lb/event)	M _i	M _v	Z _{vi}	P _i = P _{VAl} (xi)	P _{VΔ}	y _i	Z _{Li}	M _i	M _v	X _i	A	B	C	P _{VAl}
hexane	8.7487	86.18	60	0.00360	0.018716	7.441	0.00252	0.0100000	96	86.18	0.01114	6.878	1171.5	224.37	1.6802
benzene	9.5597	78.11	60	0.00394	0.022564	7.441	0.00303	0.0180000	96	78.11	0.02212	6.906	1211	220.79	1.0200
2,2,4 TMP	10.7584	114.23	60	0.00443	0.017364	7.441	0.00233	0.0400000	96	114.23	0.03362	6.812	1257.8	220.74	0.5165
toluene	10.3384	92.14	60	0.00426	0.020687	7.441	0.00278	0.0700000	96	92.14	0.07293	7.017	1377.6	222.64	0.2836
ethylbenzene	0.6356	106.17	60	0.00026	0.001104	7.441	0.00015	0.0140000	96	106.17	0.01266	6.95	1419.3	212.61	0.0872
xylenes	2.7642	106.17	60	0.00114	0.004800	7.441	0.00065	0.0700000	96	106.17	0.06329	7.009	1462.3	215.11	0.0758
cumene	0.1034	120.19	60	0.00004	1.59E-04	7.441	2.13E-05	0.0050000	96	120.19	0.00399	6.929	1455.8	207.2	0.0397
naphthalene	0.0041	128.17	60	1.69E-06	5.91E-06	7.441	7.94E-07	0.0041500	96	128.17	0.00311	7.146	1831.6	211.82	0.0019

GHG Calculations for PVCU Used for Controlled Cleaning

Equipment Description	Fuel	Estimated Propane Usage (gallons) ^a
Portable VCU	Propane	1,800

^a = Conservatively assumes one cleaning per year. Propane is based on estimate of 25 gallons/hr for 3 days.

Propane GHG Emissions

Total Actual Fuel

Usage

1,800 gallons

164 MMBTU/yr

Pollutant	CH ₄	N ₂ O	CO ₂
Emission Factor ^b	0.01	0.0013	138.605
lb/yr	1.08	0.22	22703.44
lb/hr	0.00012	0.00002	2.592
tons/yr	0.00054	0.00011	11.35

^b CO₂ emission factor is from 40 CFR 98 Subpart C Table C-1 for Propane, converted to lb/MMBTU. CH₄ and N₂O emission factors are from 40 CFR 98 Subpart C Table C-2 for Petroleum Products, converted to lb/MMBTU.

ATTACHMENT E212-B MASC SCREENING SPREADSHEET – 8
HOUR SCENARIO (U28a)



Instructions

Notes:

Fugitive emissions, there is no stack associated with emissions

Clear All

Footnotes

[illegible]

ATTACHMENT E212-B MASC SCREENING SPREADSHEET –
30 MIN SCENARIO – UNCONTROLLED TANK CLEANING
(U28a)



Instructions

Notes:

Uncontrolled emissions during tank cleaning, at stack for PVCU provided as comparison.

Clear All

Footnotes

[illegible]

ATTACHMENT E212-B MASC SCREENING SPREADSHEET –
30 MIN SCENARIO – CONTROLLED TANK CLEANING (U28a)



Footnotes

[illegible]

ATTACHMENT E212-B MASC SCREENING SPREADSHEET –
30 MIN SCENARIO – REFILL AFTER LANDING (U28a)



Instructions

Notes:

Fugitive emissions during refill after tank landing

Clear All

Footnotes

[illegible]

ATTACHMENT E212-C - GREENHOUSE GAS EMISSIONS
(U28a)



CO₂ Equivalents Calculator v1.1

Applicant Name:	Global New Haven Terminals LLC
Unit Number:	U28a

Clear All

Hydrofluorocarbon/
Perfluorocarbon
Gases

Greenhouse Gas	Global Warming Potential ¹	Emission Rate (@ Maximum Capacity)				Carbon Dioxide Equivalents		
		Potential Emissions		Proposed Allowable Emissions		Basis	Potential Emissions	Proposed Allowable Emissions
		lb/hr	tpy	lb/hr	tpy		tpy	tpy
Carbon Dioxide (CO ₂)	1	2.59E+00	1.14E+01	2.59E+00	1.14E+01		1.14E+01	1.14E+01
Methane (CH ₄)	25	1.20E-04	5.26E-04	1.20E-04	5.26E-04		1.31E-02	1.31E-02
Nitrous Oxide (N ₂ O)	298	2.00E-05	8.76E-05	2.00E-05	8.76E-05		2.61E-02	2.61E-02
Sulfur Hexafluoride (SF ₆)	22,800	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00	0.00E+00
Total GHGs			11				11	11

¹ Global Warming Potentials as listed in Table A-1 of 40 CFR Part 98 Subpart A (Mandatory Greenhouse Gas Reporting) and as amended on November 29, 2013,

ATTACHMENT F217 – PREMISES INFORMATION

Attachment F: Premises Information Form

Applicant Name: Global New Haven Terminals LLC

DEEP USE ONLY

App. No.: _____

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-217) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete Parts I through VI of this form, as applicable, for only the equipment which is located at the premises prior to the submittal of this application package. Unit(s) or modifications that are the subject of this application package are addressed in Part VII of this form.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at 860-424-4152

Note: This form is not required if you indicated in Part IV.8 of the *Permit Application for Stationary Sources of Air Pollution New Source Review Form (DEEP-NSR-APP-200)* that the premises is operating under the General Permit to Limit Potential to Emit.

Part I: Premises Information Summary

Answer each question unless directed to do otherwise. Complete the Part(s) indicated as well as Part VII.

Question	Check One	If Yes....
A. Is this a new premises? (i.e. no air pollution emitting equipment on site)	☐ Yes ☒ No	Skip Questions B through G and continue on to Part VII of this form.
B. Is the premises operating under a Title V permit?	☒ Yes ☐ No	Permit Number: 117-0257-TV Issue Date: 5/5/2022 Skip Questions C through G and continue on to Part VII of this form.
C. Is there any equipment operating under a New Source Review Permit (permit) or Air Registration (registration) at the premises?	☐ Yes ☐ No	Complete Part II of this form.
D. Are there any external combustion units, automotive refinishing operations, nonmetallic mineral processing equipment, emergency engines or surface coating operations operating under RCSA section 22a-174-3b at the premises?	☐ Yes ☐ No	Complete Part III of this form.
E. Are there any external combustion units, automotive refinishing operations, nonmetallic mineral processing equipment, emergency engines or surface coating operations operating under RCSA section 22a-174-3c at the premises?	☐ Yes ☐ No	Complete Part IV of this form.
F. Are there any emissions units operating at the premises that have potential emissions of any air pollutant below the permitting thresholds of RCSA section 22a-174-3a which have not been captured in Question E?	☐ Yes ☐ No	Complete Part V of this form.
G. Is the premises operating under a premises-wide annual limitation (other than GPLPE or RCSA section 22a-174-3c) for any air pollutant?	☐ Yes ☐ No	Complete Part VI of this form.

Part II: Permits and Registrations

Complete this part, if "Yes" was answered to Question C in Part I of this form. List each piece of equipment operating under a permit or registration located at this premises. Provide the potential emissions for each pollutant as limited by such permit or registration in tons per year for each unit. Calculate the total potential emissions from equipment operating under permits or registrations for the premises.

Permit / Registration Number	Equipment Description	Permit/Registration Issuance Date	Potential Emissions from Permit or Registration (tpy)								
			PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Totals											

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

Part III: Units Operating Under RCSA section 22a-174-3b

Complete this part, if "Yes" was answered to Question D in Part I of this form. Enter the following information for each unit operating under RCSA section 22a-174-3b. Such units may include external combustion units, automotive refinishing operations, nonmetallic mineral processing equipment, emergency engines or surface coating operations. Calculate the total potential emissions from the equipment as limited by RCSA section 22a-174-3b.

Equipment Type	Const. Date	Maximum Rated Capacity of Equipment	Potential Emissions as Limited by RCSA section 22a-174-3b (tpy)								
			PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Totals											

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

Emissions Calculation Basis: _____

Part IV: Units Operating Under RCSA section 22a-174-3c

Complete this part, if "Yes" was answered to Question E in Part I of this form. Check off the types of equipment that is operating at the premises under RCSA section 22a-174-3c. Check all that apply. Calculate the total potential emissions from the equipment limited by RCSA section 22a-174-3c for each pollutant.

Equipment Operating Under RCSA section 22a-174-3c (Check all that apply)		Fuels Used (Check all that apply)	Number of Fuels Used	Potential Emissions for Each Pollutant (tpy)	Total Potential Emissions for Each Pollutant (tpy)
External Combustion Unit	☐	☐ Gaseous Fuel ☐ Distillate Oil or a blend of distillate oil and biodiesel fuel ☐ Residual Oil or a blend of residual oil and biodiesel fuel (boiler only) ☐ Propane		15	
Emergency Engine	☐				
Nonmetallic Mineral Processing Equipment	☐	N/A	N/A	15	
Automotive Refinishing Operation	☐	N/A	N/A	15	
Surface Coating Operation	☐	N/A	N/A	15	
Totals for Each Pollutant (tpy)					

Potential emissions of any individual air pollutant for a stationary source operating under RCSA section 22a-174-3c is less than 15 tons per year unless otherwise determined by a permit or order. Please be aware that if different units are operating with the same fuel, the most stringent limitation for that fuel applies to the premises.

Part V: Other Equipment

Complete this part, if "Yes" was answered to Question F in Part I of this form. Only include units which have not been captured elsewhere on this form and have potential emissions between 5 and 15 tons per year of any individual pollutant. If it is determined that premises-wide annual emissions of a pollutant are within 90% of major source thresholds, include all units with potential emissions greater than one ton per year on this table. Calculate the total potential emissions.

Equipment Description	Const. Date	Maximum Rated Capacity of Equipment	Potential Emissions as Defined in RCSA section 22a-174-1(91) (tpy)								
			PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Totals											

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

Emissions Calculation Basis: _____

Part VI: Premises-Wide Annual Limitations

Complete this part, if “Yes” was answered to Question G in Part I of this form. List all premises-wide annual limitations applicable to this premises that appear in a permit or order. **Do not include limitations under RCSA section 22a-174-3c.**

Permit or Order Number	Pollutant Limited	Enforceable Premises-Wide Limitation (tpy)

Part VII: Premises Summary

Ozone Non-Attainment Status: ☐ Serious ☒ Severe
 PM_{2.5} Attainment Status: ☒ Attainment ☐ Non-Attainment

A. Current Premises Potential Emissions

List the applicable potential emissions totals from Parts II through VI, if required to complete those sections. Calculate the *Total Current Premises Potential Emissions* applying any applicable premise-wide limitations. A source that answered "Yes" to Question A or B in Part I of this form would only complete the last three rows of the table below.

Form Part	Part Description	Potential Emissions (tpy)								
		PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Part II	Total Potential Emissions as Limited by Permit or Registration									
Part III	Total Potential Emissions as Limited by RCSA section 22a-174-3b									
Part IV	Total Potential Emissions as Limited by RCSA section 22a-174-3c									
Part V	Total Potential Emissions from Other Sources									
Part VI	Applicable Premises-Wide Annual Limitations									
Total Current Premises Potential Emissions		<100	<100	<100	<100	<50	>50	<100	N/A	<100,000
Major Source Thresholds (severe/serious)		100	100	100	100	25/50	25/50	100	100	100,000
Existing Major Stationary Source?		☐	☐	☐	☐	☐	☒	☐	☐	☐

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

If any pollutant is checked above, this premises **is** an existing major stationary source.

If no pollutants are checked above, this premises **is not** an existing major stationary source.

Go on to Part VII.B.

B. Proposed Project Allowable Emissions

List the proposed allowable emissions from the proposed project for the equipment or modifications included in this application package from *Attachment E: Unit Emissions (DEEP-AIR-APP-212)*.

Totals	Pollutant Emissions (tpy)								
	PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Proposed Allowable Emissions						10.162			
Major Source Thresholds (severe/serious)	100	100	100	100	25/50	25/50	100	100	100,000
Project Major Source?	☐	☐	☐	☐	☐	☐	☐	☐	☐

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

If any pollutant is checked above, the proposed project **is** major in and of itself.

If no pollutants are checked above, the project **is not** major in and of itself.

Go on to Part VII.C.

C. New Premises Total Emissions

List the *Current Premises Potential Emissions* and the *Proposed Allowable Emissions* values from Parts VII.A and B. Calculate the *New Premises Total Emissions*.

Totals	Pollutant Emissions (tpy)								
	PM	PM ₁₀	PM _{2.5} *	SO _x	NO _x	VOC	CO	Pb	GHG
Total Current Premises Potential Emissions (Part VII.A)	<100	<100	<100	<100	<50	>50	<100	N/A	<100,000
Proposed Allowable Emissions (Part VII.B)						10.162			
New Premises Total Emissions									
Major Source Thresholds (severe/serious)	100	100	100	100	25/50	25/50	100	100	100,000
Premises Major Source After Project?	☐	☐	☐	☐	☐	☒	☐	☐	☐

* PM_{2.5} should include filterable PM_{2.5} plus condensable PM_{2.5}

If any pollutant is checked above, the premises **will be** considered a major stationary source after the approval of the proposed project.

If no pollutants are checked above, the premises **will not be** considered a major stationary source after the approval of the proposed project.

Go on to Part VII.D.

D. Form Requirements

Based on the results in Parts VII.A through VII.C of this form the following forms are required to be completed for each pollutant:

Premises Major Stationary Source?	Project Itself Major Stationary Source?	Premises After Project is Major Stationary Source?	Forms Required to Be Completed
Part VII.A	Part VII.B	Part VII.C	
Yes	Yes	--	- Attachment H: Major Modification Determination Form - Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form - Attachment J: Non-Attainment Review Form (for NO_x, VOC or PM_{2.5} only)
Yes	No	--	Attachment H: Major Modification Determination Form (This form will direct you to complete Attachments I or J, if required.)
No	Yes	--	- Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form - Attachment J: Non-Attainment Review Form (for NO_x, VOC or PM_{2.5} only)
No	No	--	Attachments H, I and J are not required.
--	--	Yes	If not already operating under one, the applicant is required to apply for a Title V permit within 12 months of becoming a major stationary source or the applicant must limit premises potential emissions by obtaining an approval of registration to operate under the General Permit to Limit Potential to Emit (GPLPE).

ATTACHMENT G – BACT ANALYSIS FOR LOADING ARM
(GEU2)

Attachment G: Analysis of Best Available Control Technology (BACT)

(Complete this form for each pollutant for which BACT must be incorporated. Duplicate this form as necessary.)

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

Applicant Name: Global New Haven Terminals LLC

Unit No.: GEU2

Unit Description: Gasoline loading arm

Pollutant: VOCs

Part I. Identify All Control Technologies/ Options

List all available control systems that have practical potential for application to this type of unit.

To ensure a sufficiently broad and comprehensive search of control alternatives, references other than the RBLC data should be investigated and documented. These references include: DEEP BACT Database, EPA/State air quality permits, control equipment vendors, trade associations, international agencies or companies, technical papers or journals.

Source	Facility	Control Technology	Reference
See Attachment G1			

Part II. Rank All Control Options by Technical Feasibility and Control Effectiveness

List all Control Options considered in Part I and identify which options are technically feasible. First list the technically feasible control options in descending order of Overall Pollution Reduction Efficiency and then list the technically infeasible options. If a control option is determined to be technically infeasible, specify the reason in the Comments/Rationale column. DO NOT list the Post-BACT Emissions Rate, Emissions Reduction, and the Overall Pollution Reduction Efficiency (%) for technically infeasible control options. Technically infeasibility should be based on physical, chemical, and engineering principles that would preclude the successful use of the control option on the emissions unit under review. In addition, complete *Attachment G1: Background Search – Existing BACT determinations (DEEP-NSR-APP-214b)* to provide more detailed information regarding each of the technically feasible options listed below. (Duplicate this page as necessary)

Baseline Emissions Rate (tpy): N/A

BACT Option	Technically Feasible? (Yes/No)	Allowable Emissions Rate	Emissions Reduction (tpy)	Overall Pollution Reduction Efficiency (%)	Comments/Rationale
Vapor Recovery Unit	Yes	N/A	N/A	N/A	Terminal already has primary and backup VRU. No change in emissions or throughput with additional gasoline arm.

Part III. Economic Impacts/Cost Effectiveness

Is the proposed BACT the top control option ☒ Yes

☐ No

If Yes, go to Part IV

Complete *Attachment G2: Cost/Economic Impact Analysis*, DEEP-NSR-APP-214c for each technically feasible BACT options listed in Part II for which economic impacts are to be considered before filling this Part.

Provide the following economic information for each of the BACT options with completed *Attachment G2: Cost/Economic Impact Analysis*, DEEP-NSR-APP-214c.

BACT Option	Total Annualized Cost (TAC, \$/year)	Cost Effectiveness (\$/ton)		Comments/Rationale
		Average	Incremental (optional)	

Part IV. Environmental Impact Analysis

Provide the following information regarding environmental impacts for each of the technically feasible BACT options listed in Part II. If the BACT option chosen is the top control option, the environmental impact analysis should be done for that option only.

BACT Option	Toxics Impact		Adverse Impact		Comments/Rationale
	Yes/No	amount/ton	Yes/No	amount/ton	
Vapor Recovery Unit	No		No		No change in emissions or throughput

Part V. Energy Impact Analysis

Provide the following information regarding energy impacts for each of the technically feasible BACT options listed in Part II. If the BACT option chosen is the top control option, the energy impact analysis should be done for that option only.

Baseline (specify units): N/A

BACT Option	Incremental Increase Over Baseline (specify units)	Comments/Rationale
Vapor Recovery Unit	N/A	

Part VI. BACT Recommendation

BACT Option Recommended: Vapor Recovery Unit

Justification: Primary and backup VRU already installed at loading rack. VRU considered BACT based on background search (See CT BACT database entry).

Part VII. Additional Forms/Attachments

Indicate the number of each type of form included as part of this BACT analysis.

Number of Forms	Form Number	Form Name	Mandatory?
1	DEEP-NSR-APP-214b	Attachment G1: Background Search – Existing BACT Determinations	Yes
	DEEP-NSR-APP-214c	Attachment G2: Cost/Economic Impact Analysis	Yes, for each economic consideration
1	DEEP-NSR-APP-214d	Attachment G3: Summary of Best Available Control Technology	Yes

Additional Attachments: 3

ATTACHMENT G1 – BACT BACKGROUND SEARCH FOR
LOADING ARM (GEU2)

Attachment G1: Background Search – Existing BACT Determinations

Applicant Name: Global New Haven Terminals LLC

Unit No.: GEU2

Unit Description: Gasoline loading arm

Pollutant: VOC

BACT Option: Vapor Recovery Unit at loading rack

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this form for each existing BACT or LAER determination found for a unit which is the same or similar to the subject unit. LAER determinations may be considered BACT in some instances.

To ensure a sufficiently broad and comprehensive search of control alternatives, sources other than the RBLC data should be investigated and documented. These sources include: DEEP BACT Database, EPA/State air quality permits, control equipment vendors, trade associations, international agencies or companies, technical papers or journals.

Indicate if BACT or LAER Determination:		☒ BACT	☐ LAER
Source	Truck Loading Rack with John Zink VRU		
Facility/Location	New Haven Terminal, Inc 119 Frontage Rd New Haven		
Permitting Authority	CT DEEP		
Permit No.	054-0025		
Capacity (specify units)	135,000 gal/hr, 1,182,500,000 gal/yr		
BACT/LAER Determination	VOC		
Compliance Achieved? (Yes/No)			
Method of Compliance Determination			
Actions Taken for Noncompliance			
Baseline Emissions Rate (specify units)			
Allowable Emissions Rate (specify units)			
Emissions Reduction Potential (%)			
Cost Effectiveness (\$/ton removed)			
Reference	CT BACT Database		

ATTACHMENT G3 – BACT REVIEWS SUMMARY FOR LOADING
ARM (GEU2)

Attachment G3: Summary of Best Available Control Technology Reviews

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

List each emissions unit subject to the BACT requirements. For each emissions unit listed, indicate the Emissions Unit number and all pollutants that are subject to the BACT requirements. *Attachment G: Analysis of Best Available Control Technology* (DEEP-NSR-APP-214a) should be completed for each emissions unit-pollutant combination listed in this table.

Unit Description	Unit Number	Pollutants Subject to BACT									
		PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	GHG	Other (please specify)	
Gasoline loading arm	GEU2	☐	☐	☐	☐	☐	☐	☒	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
Baseline Project Emissions Total in tons per year (tpy):								N/A			Comments: No change in emissions or throughput. Vapor Recovery Units already at the facility for control at the rack.
Allowable Project Emissions Total in tons per year (tpy):								N/A			

ATTACHMENT G – BACT ANALYSIS FOR TANK 123 (U28a)

Attachment G: Analysis of Best Available Control Technology (BACT)

(Complete this form for each pollutant for which BACT must be incorporated. Duplicate this form as necessary.)

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

Applicant Name: Global New Haven Terminals LLC

Unit No.: U28a

Unit Description: Tank 123

Pollutant: VOCs

Part I. Identify All Control Technologies/ Options

List all available control systems that have practical potential for application to this type of unit.

To ensure a sufficiently broad and comprehensive search of control alternatives, references other than the RBLC data should be investigated and documented. These references include: DEEP BACT Database, EPA/State air quality permits, control equipment vendors, trade associations, international agencies or companies, technical papers or journals.

Source	Facility	Control Technology	Reference
See Attachment G1			

Part II. Rank All Control Options by Technical Feasibility and Control Effectiveness

List all Control Options considered in Part I and identify which options are technically feasible. First list the technically feasible control options in descending order of Overall Pollution Reduction Efficiency and then list the technically infeasible options. If a control option is determined to be technically infeasible, specify the reason in the Comments/Rationale column. DO NOT list the Post-BACT Emissions Rate, Emissions Reduction, and the Overall Pollution Reduction Efficiency (%) for technically infeasible control options. Technically infeasibility should be based on physical, chemical, and engineering principles that would preclude the successful use of the control option on the emissions unit under review. In addition, complete *Attachment G1: Background Search – Existing BACT determinations (DEEP-NSR-APP-214b)* to provide more detailed information regarding each of the technically feasible options listed below. (Duplicate this page as necessary)

Baseline Emissions Rate (tpy): 16.134 tpy (includes uncontrolled cleaning)

BACT Option	Technically Feasible? (Yes/No)	Allowable Emissions Rate	Emissions Reduction (tpy)	Overall Pollution Reduction Efficiency (%)	Comments/Rationale
Portable VCU for tank cleaning with IFR	Yes	10.162	5.972	37%	Portable VCU has 98% destruction efficiency. Emission rate includes routine emissions, landings and controlled cleaning
Portable VCU for tank landings with IFR	Yes	9.797	0.365	3.6%	Assumes controlled landings and cleanings. Emissions reduction is compared to controlled cleaning only
Internal Floating Roof	Yes				Currently installed in tank

Part III. Economic Impacts/Cost Effectiveness

Is the proposed BACT the top control option ☐ Yes

☒ No

If Yes, go to Part IV

Complete *Attachment G2: Cost/Economic Impact Analysis*, DEEP-NSR-APP-214c for each technically feasible BACT options listed in Part II for which economic impacts are to be considered before filling this Part.

Provide the following economic information for each of the BACT options with completed *Attachment G2: Cost/Economic Impact Analysis*, DEEP-NSR-APP-214c.

BACT Option	Total Annualized Cost (TAC, \$/year)	Cost Effectiveness (\$/ton)		Comments/Rationale
		Average	Incremental (optional)	
Portable VCU for tank landings with IFR	\$51,220	\$140,329/ton		See Attachment G2

Part IV. Environmental Impact Analysis

Provide the following information regarding environmental impacts for each of the technically feasible BACT options listed in Part II. If the BACT option chosen is the top control option, the environmental impact analysis should be done for that option only.

BACT Option	Toxics Impact		Adverse Impact		Comments/Rationale
	Yes/No	amount/ton	Yes/No	amount/ton	
Portable VCU for tank cleaning	No		No		Individual HAP emissions < 500 lb/yr
Portable VCU for tank landing	No		No		Individual HAP emissions < 500 lb/yr
Internal Floating Roof	No		No		Individual HAP emissions < 500 lb/yr

Part V. Energy Impact Analysis

Provide the following information regarding energy impacts for each of the technically feasible BACT options listed in Part II. If the BACT option chosen is the top control option, the energy impact analysis should be done for that option only.

Baseline (specify units):

BACT Option	Incremental Increase Over Baseline (specify units)	Comments/Rationale
Portable VCU for tank with IFR	N/A	Minor energy usage offset by reduction in emissions. Exact energy usage unknown since it is dependent upon rental equipment
Portable VCU for tank landing	N/A	Minor energy usage offset by reduction in emissions. Exact energy usage unknown since it is dependent upon rental equipment
Internal Floating Roof	N/A	N/A

Part VI. BACT Recommendation

BACT Option Recommended: Portable VCU for tank cleaning with IFR

Justification: Portable VCU for tank cleaning with IFR is BACT based on background search (see entry from CT BACT database). Portable VCU was not selected for refill after a landing due to the cost given the number of landings per year relative to the typical number of cleanings per year. Also, an uncontrolled cleaning does not pass MASC for benzene (See Attachment E to permit application), whereas an uncontrolled refill after a landing does pass MASC screening so the Portable VCU is selected only for tank cleanings.

Part VII. Additional Forms/Attachments

Indicate the number of each type of form included as part of this BACT analysis.

Number of Forms	Form Number	Form Name	Mandatory?
1	DEEP-NSR-APP-214b	Attachment G1: Background Search – Existing BACT Determinations	Yes
1	DEEP-NSR-APP-214c	Attachment G2: Cost/Economic Impact Analysis	Yes, for each economic consideration
1	DEEP-NSR-APP-214d	Attachment G3: Summary of Best Available Control Technology	Yes

Additional Attachments: 3

ATTACHMENT G1 – BACT BACKGROUND SEARCH FOR TANK
123 (U28a)

Attachment G1: Background Search – Existing BACT Determinations

Applicant Name: Global New Haven Terminals LLC

Unit No.: U28a

Unit Description: Tank 123

Pollutant: VOC

BACT Option: Internal Floating Roof and Portable VCU for tank cleaning

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this form for each existing BACT or LAER determination found for a unit which is the same or similar to the subject unit. LAER determinations may be considered BACT in some instances.

To ensure a sufficiently broad and comprehensive search of control alternatives, sources other than the RBLC data should be investigated and documented. These sources include: DEEP BACT Database, EPA/State air quality permits, control equipment vendors, trade associations, international agencies or companies, technical papers or journals.

Indicate if BACT or LAER Determination:		☒ BACT	☐ LAER
Source	See attachment G1-A		
Facility/Location			
Permitting Authority			
Permit No.			
Capacity (specify units)			
BACT/LAER Determination			
Compliance Achieved? (Yes/No)			
Method of Compliance Determination			
Actions Taken for Noncompliance			
Baseline Emissions Rate (specify units)			
Allowable Emissions Rate (specify units)			
Emissions Reduction Potential (%)			
Cost Effectiveness (\$/ton removed)			
Reference			

ATTACHMENT G1-A – BACKGROUND SEARCH ATTACHMENT
FOR TANK 123 (U28a)

Facility Name	Facility County	Facility State	Agency Name	Permit Number	Permit Issuance Date	Source of Information	Control Device Description
Buckeye PT Terminals LP	New Haven	CT	CT DEEP	117-0384	8/5/2022	CT BACT Database	Use of a Vapor Control Unit during degassing events with 98% efficiency
Phillips 66 Pipeline LLC	Madison	IL	Illinois Epa, Bureau Of Air	06110049	1/23/2015	RBLC	Internal Floating Roof
Beaumont Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	18295, PSDTX1466, GHGSPDXTX139	6/8/2016	RBLC	IFR tanks (EPNs 169, 216, 218, 221, 230, 233, 234, 236, and 255) have a liquid-mounted primary seal. IFR tanks (EPNs 396 and 397) have a vapor-mounted primary seal and rim-mounted secondary seal. Methanol tanks (EPNs 300, 301, 302) have a mechanical shoe primary seal and rim-mounted secondary seal. All of these tanks are greater than 25 Mgal and store liquids with a TVP less than 11.0 psia, are painted white, and use submerged fill.
Beaumont Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	18295, PSDTX1466, GHGSPDXTX139	6/8/2016	RBLC	All 68 EFR tanks are greater than 25 Mgal and store liquids with a TVP less than 11.0 psia. They have a mechanical shoe primary seal, rim-mounted secondary seal, and slotted guide poles with gasketed sliding covers pole sleeves, and pole wipers. All EFR tanks are painted white, with the exception of Tank 167, which is currently out of service. Tank 167 will be painted white before it is returned to service. The 37 new tanks have drain dry design.
Pasadena Terminal	Harris	TX	Texas Commission On Environmental Quality (TCEQ)	142261 AND N254	7/14/2017	RBLC	Roof landings will be routed to control device for a 99.8% destruction efficiency and refilling losses will be controlled by a portable vapor combustor unit with a 99.5% collection efficiency.
Buckeye South Texas Gateway Terminal	San Patricio	TX	Texas Commission On Environmental Quality (TCEQ)	151476, PSDTX1536, AND GHGSPDXTX139	3/13/2019	RBLC	equipped with a primary and secondary seal, painted white, and has drain dry floor design.
Motiva Port Arthur Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	7238 AND PSDTX1548	2/19/2020	RBLC	Internal Floating Roof storage tank equipped with mechanical shoe primary seal and rim-mounted secondary seal. Painted white with drain-dry design
Motiva Port Arthur Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	7238 AND PSDTX1548	2/19/2020	RBLC	Controlled Degassing: Unless specified below, route to appropriate control device when degassing. Control must be maintained until the VOC concentration is less than 10,000 ppmv VOC (or equivalent for non-VOCs). If there is any standing liquid within the tank, and the tank is opened to the atmosphere or ventilated, the vapor stream must be controlled until there is no standing liquid or the VOC vapor pressure is less than 0.02 psia. Route to control device during roof refloating if emissions from filling tanks without degassing and cleaning is > 5tpy. In this case, if controlling through fixed roof vent, route to control device during entire tank refill. New tanks must be designed to be drain dry with connections to control vapors under a landed roof. Commence under-roof degassing within 24 hours of landing. Degas every 24 hours unless no standing liquid in tank or vapor pressure of liquid in tank has a VOC partial pressure <0.02 psi.
Motiva Port Arthur Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	7238 AND PSDTX1548	2/19/2020	RBLC	All liquids from process equipment or storage vessels must be removed to the maximum extent practical prior to opening equipment to commence degassing and/or maintenance. Liquids must be drained into a closed vessel or closed liquid recovery system unless prevented by the physical configuration of the equipment. If it is necessary to drain liquid into an open pan or sump, the liquid must be covered or transferred to a covered vessel within one hour of being drained.
Centurion Brownsville	Cameron	TX	Texas Commission On Environmental Quality (TCEQ)	147681, PSDTX1522, GHGSPDXTX172	10/19/2021	RBLC	Internal floating roof with a mechanical shoe primary seal and a rim-mounted secondary seal. Tanks must be painted white or unpainted aluminum, utilize submerged fill, and designed to be drain-dry..
Centurion Brownsville	Cameron	TX	Texas Commission On Environmental Quality (TCEQ)	147681, PSDTX1522, GHGSPDXTX172	10/19/2021	RBLC	Controlled Degassing: Emissions from conditions of standing idle, degassing, controlled forced ventilation, and refilling until the roof is refloated will be vented to a vapor combustor with a VOC destruction efficiency of 99%. Emissions shall be controlled until the VOC vapor space concentration has been verified to be less than or equal to 5,000 ppmv at which time emissions may be vented to the atmosphere uncontrolled. Tanks may be opened without restriction and ventilated without control when there is either no liquid and/or sludge remaining in the tank, or the vapor pressure of the liquid and/or sludge remaining in the tank has a VOC vapor pressure less than 0.02 psia. Controlled emissions from only one floating roof tank containing liquids having a VOC vapor pressure greater than 0.50 psia may be landed at a time. The application represents that two tanks may have uncontrolled venting at any one time.
CCI Corpus Christi Condensate Splitter Facility	Nueces	TX	Texas Commission On Environmental Quality (TCEQ)	116072 AND PSDTX1388	6/19/2015	RBLC	Vapor space under the landed floating roof is degassed to a flare meeting the requirements 40CFR60.18 until VOC concentration is 10,000 ppmv or less.
Beaumont Terminal	Jefferson	TX	Texas Commission On Environmental Quality (TCEQ)	18295, PSDTX1466, GHGSPDXTX139	6/8/2016	RBLC	Landing, degassing, and refilling events will be controlled by a portable VCU or thermal oxidizer meeting TCEQ BACT. Degassing will begin within 24 hours of roof landing. All new tanks have drain dry design.

ATTACHMENT G2 – BACT ECONOMIC IMPACT ANALYSIS FOR
TANK 123 (U28a)

Attachment G2: Cost/Economic Impact Analysis

Applicant Name: Global New Haven Terminals LLC

Unit No.: U28a

Pollutant: VOC

BACT Option: Portable VCU for refill after landing

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete this form for each BACT option in which cost and economic impacts are to be considered. On this form, do not include costs that would be incurred regardless of whether the BACT option is chosen. If the particular item is not applicable to the BACT option being evaluated, indicate "Not Applicable" (N/A) in the appropriate blanks. Add additional lines and/or use additional forms as necessary. Complete this form for each technically feasible BACT Option in Part II of Attachment G *Best Available Control Technology* (DEEP-NSR-APP-214a).

Part I. Total Capital Investment

Total Capital Investment (TCI) is the total direct and indirect capital costs associated with implementation of a BACT option. Use Tables A and B to indicate the direct and indirect capital costs that would be incurred above the baseline project costs. Attach vendor quotes and additional sheets as necessary.

Table A. Direct Capital Costs

	Item	Cost Estimate	Reference/Comments
Purchased Equipment Costs	1. Equipment Costs (Itemize Below)		
		\$	See Attachment G2-A
		\$	
		\$	
		\$	
	2. Instrumentation	\$	
	3. Sales Tax	\$	
	4. Freight	\$	
	5. Other:	\$	
	6. Purchased Equipment Subtotal (Sum of Items 1, 2, 3, 4, and 5)	\$	

Table A. Direct Capital Costs (continued)

Direct Installation Costs	7. Foundations and Supports	\$	
	8. Auxiliaries (duct work, fittings – include only the equipment which would not be necessary if the facility was not controlled)	\$	
	9. Handling and Erection	\$	
	10. Piping	\$	
	11. Insulation and Painting	\$	
	12. Electrical	\$	
	13. Site Preparation	\$	
	14. Other:	\$	
	15. Direct Installation Costs Subtotal (Sum of Items 7, 8, 9, 10, 11, 12, 13 and 14)	\$	
	16. DIRECT CAPITAL COSTS SUBTOTAL (Sum of Items 6 and 15)	\$	

Table B. Indirect Installation Costs

Item	Cost Estimate	Reference/Comments
1. Engineering and Supervision	\$	
2. Lost Production (for retrofit situations only)	\$	
3. Construction and Field Expenses	\$	
4. Contractor Fees	\$	
5. Start-up and Performance Tests	\$	
6. Over-all Contingencies	\$	
7. Working Capital (if applicable)	\$	
8. Other:	\$	
9. Indirect Installation Costs Subtotal (Sum of Items 1, 2, 3, 4, 5, 6, 7, and 8)	\$	

Table C. Capital Cost Summary

Item	Cost Estimate	Reference/Comments
1. Total Capital Investment Subtotal (Sum of Table A, item 16 and Table B Item 9)	\$	
2. Capital Recovery Factor		
a. Interest Rate		
b. Economic Lifetime		
3. Capital Recovery Cost	\$	

Part II. Total Annual Cost

Total Annual Cost includes the direct and indirect costs and recovery credits associated with implementation of a BACT option. Use Tables D and E to indicate the annual costs that would be incurred above the baseline project costs. Use Table F to indicate the recovery credits that would be realized after implementation of the BACT option. Summarize the total annual costs in Table G. Attach vendor quotes and additional sheets as necessary.

Table D. Direct Capital Costs

Item	Cost Estimate	Reference/Comments
1. Operating Labor (Itemize Below)		
	\$	
	\$	
2. Maintenance Labor (Itemize Below)		
	\$	
	\$	
3. Materials (Itemize Below)		
	\$	
	\$	
4. Utilities (Itemize Below)		
	\$	
	\$	
5. Waste Treatment and Disposal (Itemize Below)		
	\$	
	\$	
6. Replacement Parts (Itemize Below)		
	\$	
	\$	
7. Other (Please Specify)		
	\$	
	\$	
8. DIRECT ANNUAL COSTS SUBTOTAL (Sum of Items 1, 2, 3, 4, 5, 6, and 7)	\$	

Table E. Indirect Annual Costs

Item	Cost Estimate	Reference/Comments
1. Overhead	\$	
2. Property Taxes, Insurance, and Administrative Charges	\$	
3. Other:	\$	
4. Indirect Annual Costs Subtotal (Sum of Items 1, 2, and 3)	\$	

Table F. Recovery Credits

Item	Cost Estimate	Reference/Comments
1. Materials Recovered		
	\$	
2. Energy Recovered		
	\$	
3. Other (Please Specify)		
	\$	
4. RECOVERY CREDITS SUBTOTAL (Sum of Items 1, 2, and 3)	\$	

Table G. Total Annual Cost Summary

Item	Cost Estimate	Reference/Comments
1. Direct Annual Costs Subtotal (Table D, Item 8)	\$	
2. Indirect Annual Costs Subtotal (Table E, Item 4)	\$	
3. Recovery Credits Subtotal (Table F, Item 4)	\$	
4. TOTAL ANNUAL COST SUBTOTAL (Items 1 plus Item 2 minus Item 3)	\$	

Part III. Cost/Economic Impact Summary

Table H. Total Annualized Cost Summary

Item	Cost Estimate
1. Capital Recovery Cost (Table C, Item 3)	\$
2. Total Annual Cost Subtotal (Table G, Item 4)	\$
3. TOTAL ANNUALIZED COST (TAC) (Sum of Items 1 and 2)	\$

Table I. Cost Effectiveness

Item	Cost Estimate
1. Baseline Emissions Rate (tpy)	
2. Allowable Emissions Rate (tpy)	
3. Total Pollutant Removed (tpy) (Difference of Item 1 and Item 2)	
4. AVERAGE COST EFFECTIVENESS OF BACT OPTION (\$/ton of pollutant removed) (Divide Table H, Item 3 by Table I, Item 3)	\$

Part IV. Attachments

List any attachments used to support your calculations in the table below.

Attachment	Description

ATTACHMENT G2-A – COST ESTIMATE (U28a)

Cost Estimate for Controlled Refill After Landing	Rate	Qty.	Unit	Total
ONE-TIME COST ESTIMATE OF PREPARATION / MOBILIZATION / SET-UP / TEAR-DOWN / DEMOBILIZATION				
Preparation, Set-up, and Break-down ☐ Shop preparation & equipment loading ☐ Transportation of crew to Customer plant gate, incl travel time per diem ☐ Qualified Operators with Site-Specific Training, equipped with PPE to include FRCs, steel-toe shoes, hard hat, safety glasses, gloves, mono-goggles, H2S monitor, and respirator ☐ Includes two (2) hours of set-up and two (2) hours of tear-down time	\$28,100	1	Event	\$28,100
Additional Time for Set-up and Tear-down (if required) ☐ Two (2) hours of set-up and two (2) hours of tear-down allowance has been included in mobilization/demobilization fee ☐ Two Operators ☐ Set-up is estimated time from arrival at gate until set-up is completed (after test-fire of Mobile Vapor Combustor) ☐ Tear-down is estimated time from end of operation until crew departs the gate ☐ Customer will be charged for actual time exceeding the allowance ☐ Set-up includes vapor hose allowance of 200 ft. ☐ Additional cost for hose over allowance is \$1/ft./day.	\$260	TBD	Hours	TBD
Roundtrip Flights for Qualified Out-of-Town Operators: Charged Cost +15%	\$800	4	Flights	\$3,200
ESTIMATED SUBTOTAL: ONE-TIME COSTS				\$31,300
PROJECT EXECUTION				
15 MMBTU GEM Mobile Vapor Combustor ☐ 8-hour minimum per shift applies ☐ Two (2) Operators per shift ☐ Includes TVA 1000 FID, 4-Gas, PID, or Eagle Meter (if N2 present) ☐ Environmental Report ☐ Estimate only - billing would be for the actual operating hours	\$450	27	Hours	\$12,150
Trucks (Fueled)	\$150	3	Shifts	\$450
Electricity: 125 kVA Generator ☐ Fueled, Operating Rate (GEM bills Cost +15% for generator & fuel if cost > \$800/shift)	\$800	3	Shifts	\$2,400
Propane (includes delivery, setup, and pickup) ☐ Total cost of propane service to be billed at cost plus 15% ☐ Propane consumption estimated to average 25 gals/hr	\$4.80 x 25	27	Hours	\$3,240
Travel Expenses- Charged for Days of Operation (and Standby if applicable) ☐ Applicable when project is >50 miles from mobilization point ☐ Hotel \$150/day/Operator ☐ Per Diem \$60/day/Operator	\$300 \$120	4 4	Shifts Shifts	\$1,200 \$480
ESTIMATED SUBTOTAL: EXECUTION PHASE (Excluding Electricity & Propane)				\$19,920
ESTIMATED GRAND TOTAL				\$51,220
Additional Costs (If Necessary)				
Additional Hose: If Needed (\$1/ft/day)	\$1/ft./day	TBD	Days	TBD

ATTACHMENT G3 – BACT REVIEWS SUMMARY FOR TANK 123
(U28a)

Attachment G3: Summary of Best Available Control Technology Reviews

Complete this form in accordance with the [instructions](#) (DEEP-NSR-INST-214) to ensure the proper handling of your application. Print or type unless otherwise noted.

List each emissions unit subject to the BACT requirements. For each emissions unit listed, indicate the Emissions Unit number and all pollutants that are subject to the BACT requirements. *Attachment G: Analysis of Best Available Control Technology* (DEEP-NSR-APP-214a) should be completed for each emissions unit-pollutant combination listed in this table.

Unit Description	Unit Number	Pollutants Subject to BACT									
		PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	GHG	Other (please specify)	
Tank 123	U28a	☐	☐	☐	☐	☐	☐	☒	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
		☐	☐	☐	☐	☐	☐	☐	☐	☐	
Baseline Project Emissions Total in tons per year (tpy):								16.134			Comments: Baseline Project Emissions assumes uncontrolled cleaning. The allowable Project Emissions include controlled cleaning.
Allowable Project Emissions Total in tons per year (tpy):								10.162			

ATTACHMENT H – MAJOR MODIFICATION DETERMINATION
FORM

Attachment H: Major Modification Determination Form

Applicant Name: Global New Haven Terminals LLC

DEEP USE ONLY

App. No.: _____

Complete this form in accordance with the instructions (DEEP-NSR-INST-213) to ensure the proper handling of your application. Print or type unless otherwise noted.

Complete Attachment F: Premises Information Form (DEEP-NSR-APP-217) prior to completing this form. Complete this form if the proposed project will be located at an existing major stationary source.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I: Applicability

- a. Indicate the pollutant(s) for which the premises is classified as a major stationary source prior to the processing of this application package (Part VII.A of Attachment F): VOCs
- b. Indicate, in the table below, the pollutants the proposed project will emit: (Check all that apply)

List of Pollutants (Table 3a(k)-1)

Pollutant	Proposed Project Emits Pollutant?	Pollutant	Proposed Project Emits Pollutant?
CO	☐	Sulfuric Acid Mist	☐
NO _x	☐	Fluorides	☐
SO ₂	☐	Lead	☐
PM	☐	Mercury	☐
PM _{2.5}	☐	Municipal Waste Combustor Organics (measured as total tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans)	☐
PM ₁₀	☐	Municipal Waste Combustor Metals (measured as particulate matter)	☐
VOC	☒		
H ₂ S	☐		
Total Reduced Sulfur (Including H ₂ S)	☐		

Complete Parts II through V of this form as applicable for those pollutants that are checked in Part I.b above.

Part II: Basis

Provide the following information to determine the 5-year contemporaneous period for the major modification review.

Proposed Project Commence Construction Date		
Five Years prior to the Proposed Commence Construction Date		NOTE: Five years prior to the start of actual operation of the Proposed Project is the 5-year contemporaneous period for emissions increases and decreases to be used in Part IV of this form. Therefore, the 5-year contemporaneous period may shift if construction does not commence by the proposed construction date.

Part III: Total Project Emissions Increase

Provide the following information for the total project. Calculate the *Total Project Emissions Increase* for the subject pollutant.

Pollutant	Total Proposed Project Emissions ¹ (tpy)	Total 2-yr Actual Emissions, if modification (tpy)	Total Project Emissions Increase (tpy)
CO			
NOx (as an ozone precursor)			
NOx (as a PM _{2.5} precursor)			
NOx (NOx NAAQS)			
SO ₂ (as a PM _{2.5} precursor)			
SO ₂ (SO ₂ NAAQS)			
PM			
PM _{2.5}			
PM ₁₀			
VOC	10.162	0	10.162
Hydrogen Sulfide (H ₂ S)			
Total Reduced Sulfur (Including H ₂ S)			
Reduced Sulfur Compound (including H ₂ S)			
Sulfuric Acid Mist			
Fluorides			
Lead			
Mercury			
Municipal Waste Combustor Organics (measured as total tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans)			
Municipal Waste Combustor Metals (Measured as particulate matter)			
Municipal Waste Combustor Acid Gases (Measured as sulfur dioxide and hydrogen chloride)			

¹Proposed project emissions for:

- New units and existing emission units (excluding existing electric utility steam generating units), shall be the proposed allowable emissions as it is listed on *Attachment E: Unit Emissions Form* (DEEP-NSR-APP-212),
- Existing electric utility steam generating units, shall be the representative actual annual emissions of the unit. Representative actual annual emissions means the average rate at which the source is projected to emit a pollutant for the two year period following the proposed change.

The Proposed Project Emissions for existing electric utility steam generating units must be based on representative actual emissions projected for the two years immediately following the proposed modification. If another two year period was selected as the representative two year period for proposed project emissions above, select check box and submit written justification for using a alternative two year period as Attachment 213-A.	☐ Attachment 213-A
The Total 2- yr Actual Emissions must be based on actual emissions for the two years immediately preceding the proposed modification. New units would enter a "0" since they did not previously exist. If the most recent two year period was not selected as the representative two year period for actual emissions above, select check box and submit written justification for using a period other than the most recent two years of actual emissions as Attachment 213-B.	☐ Attachment 213-B

Part IV: Contemporaneous Creditable Emissions Increases and Decreases

Provide the following information for all contemporaneous creditable emissions increases and decreases during the 5-year contemporaneous period determined in Part II. Calculate the *Total Contemporaneous Increases/Decreases* for the subject pollutant and enter the results in Part V. Duplicate this page if necessary.

NOTE: For each electric utility steam generating unit, new actual emissions under this section shall be representative actual emissions for the unit if the change being documented did not occur more than two years prior to the current project. Representative actual emissions means the average rate at which the source is projected to emit a pollutant for the two year period following the contemporaneous change being documented here.

Change Type (NEW, MOD, REM, PBR, DB)	Equipment Description	License No. or Regulation	Date of Change	Pollutants (tpy)									
				New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT	New ACT	2-yr ACT
N/A	N/A	N/A	/ /										
			/ /										
			/ /										
			/ /										
			/ /										
			/ /										
			/ /										
Totals (tpy)													
TOTAL CONTEMPORANEOUS INCREASES/DECREASES (tpy) (New ACT – 2-yr ACT)													

The 2-yr ACT emissions for each unit listed in Part IV must be based on the average actual emissions for the two years immediately preceding the change. New units would enter a "0" since they did not previously exist. If the most recent two year period was not selected as the representative two year period for actual emissions for any changed unit, select check box and submit written justification for using a period other than two years of actual emissions immediately preceding the change as Attachment 213-C.

☐ Attachment 213-C

Part V: Emissions Summation

Add the *Total Project Emission Increase* value from Part III of this form to the *Total Contemporaneous Increases/Decreases* value from Part IV of this form to calculate the *Net Emissions Increase* for the subject pollutant.

Pollutant	Total Project Emissions Increase (tpy)	Total Contemporaneous Increases and/or Decreases	Net Emissions Increase	Significant Emission Rate Threshold (RCSA §22a-174-3a(k), Table 3a(k)-1)	Is NET EMISSIONS INCREASE equal to or greater than SIGNIFICANT EMISSION RATE THRESHOLD?
CO				100	☐ Yes ☒ No
NOx (as an Ozone precursor)				25	☐ Yes ☒ No
NOx (as a PM _{2.5} precursor)				40	☐ Yes ☒ No
NOx (NOx NAAQS)				40	☐ Yes ☒ No
SO ₂ (as a PM _{2.5} precursor)				40	☐ Yes ☒ No
SO ₂ (SO ₂ NAAQS)				40	☐ Yes ☒ No
PM				25	☐ Yes ☒ No
PM _{2.5}				10	☐ Yes ☒ No
PM ₁₀				15	☐ Yes ☒ No
VOC	10.162	0	10.162	25	☐ Yes ☒ No
Hydrogen Sulfide (H ₂ S)				10	☐ Yes ☒ No
Total Reduced Sulfur (including H ₂ S)				10	☐ Yes ☒ No
Reduced Sulfur Compounds (include H ₂ S)				10	☐ Yes ☒ No
Sulfuric Acid Mist				7	☐ Yes ☒ No
Fluorides				3	☐ Yes ☒ No
Lead				0.6	☐ Yes ☒ No
Mercury				0.1	☐ Yes ☒ No
Municipal Waste Combustor Organics (measured as total tetra through octachlorinated dibenz-p-dioxins and dibenzofurans)				3.5x10 ⁻⁶	☐ Yes ☒ No
Municipal Waste Combustor Metals (measured as particulate matter)				15	☐ Yes ☒ No
Municipal Waste Combustor Acid Gases (measured as sulfur dioxide and hydrogen chloride)				40	☐ Yes ☒ No

If, in the table above, the answer in the last column is “No” for *all* pollutants: (Is net emissions increase equal to or greater than significant emission rate threshold?)

This project ***is not*** considered a major modification for any pollutant.

If the premises is currently major for NO_x or VOC, complete *Attachment J – Non-Attainment Review Form* to determine if the source is subject to non-attainment review.

If, in the table above, the answer in the last column is “Yes” for *any* pollutant: (Is net emissions increase equal to or greater than significant emission rate threshold?)

This project ***is*** considered a major modification for each pollutant indicated as such above.

If this form indicates the proposed project is a major modification for NO_x or VOC, complete *Attachment J: Non-Attainment Review Form* (DEEP-NSR-APP-215). If the net emissions increase for NO_x is greater than 40 tpy, also complete *Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form* (DEEP-NSR-APP-216).

For all other pollutants, complete *Attachment I: Prevention of Significant Deterioration of Air Quality (PSD) Program Form* (DEEP-NSR-APP-216).

ATTACHMENT L – AMBIENT IMPACT ANALYSIS FORM

Attachment L: Ambient Impact Analysis Form

Applicant Name: Global New Haven Terminals LLC

Complete this form in accordance with the instructions (DEEP-NSR-INST-218) to ensure the proper handling of your application. Print or type unless otherwise noted.

Questions? Visit the [Air Permitting](#) web page or contact the Air Permitting Engineer of the Day at DEEP.BAM.AirPermits@ct.gov or 860-424-4152.

Part I. Applicability

For each pollutant, enter the proposed allowable emissions from *Attachment E212: Unit Emissions Supplemental Application Form* (DEEP-NSR-APP-212) and indicate which review is required for each pollutant. For modifications, indicate if the proposed allowable emissions are greater than current allowable emissions.

Pollutant	Proposed Allowable Emissions (TPY)	Ambient Air Quality Review Level						For Modifications Only
		Stack Height Review		Screening		Refined Modeling		Are Proposed Allowable Emissions Greater than Current Allowable Emissions?
PM ₁₀	N/A	☐	<3 tpy	☐	≥3 tpy & <15 tpy	☐	≥15 tpy	☐ Yes ☐ No
PM _{2.5} Total (filterable + condensable)	N/A	☐	<1 tpy	☐	≥1 tpy & <10 tpy	☐	≥10 tpy	☐ Yes ☐ No
SO ₂	N/A	☐	<3 tpy	☐	≥3 tpy & <15 tpy	☐	≥15 tpy	☐ Yes ☐ No
NO _x	N/A	☐	<5 tpy	☐	≥5 tpy & <40 tpy	☐	≥40 tpy	☐ Yes ☐ No
CO	N/A	☐	<5 tpy	☐	≥5 tpy & <100 tpy	☐	≥100 tpy	☐ Yes ☐ No
Pb	N/A	☐	<0.6 tpy	--		☐	≥0.6 tpy	☐ Yes ☐ No
Total Dioxins	N/A	--		--		☐	≥0.6 x 10 ⁻⁷ tpy	☐ Yes ☐ No

For Modifications: If the proposed allowable emissions are greater than the current allowable emissions for any pollutant, or any stack parameter has changed (stack height, flowrate, etc.), the associated Ambient Air Quality Reviews must be completed or revisited.

Part II. Stack Height Review

Complete this Part if a Stack Height Review is required in Part I for any pollutant. This Part is not required for sources performing a Screening Modeling Analysis or a Refined Modeling Analysis. Instead, complete Part III and/or IV of this form as appropriate.

A unit passes the stack height review if the associated stack is greater than or equal to the greater of (1) 10 meters (32.8 ft) or (2) the lesser of 1.3 times the building height or 1.3 times the building width. The referenced building is the building the unit is located in; or if the unit is outdoors, the closest building or structure.

If a unit does not pass the Stack Height Review, a Screening Modeling or Refined Modeling Analysis may be performed to demonstrate compliance with the Ambient Air Quality Standards.

Stack No.	Stack Height (SH) (feet)	Building or Structure No. (Building)	Building Height (BH) (feet)	Building Width (BW) (ft)	Multiply the lesser of BH or BW by 1.3 (BL) (ft)	Minimum Stack Height Required... Which is greater, 32.8 ft or BL? (MSH)	Is SH Greater Than or Equal to MSH? If yes, review is complete.
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No
						☐ 32.8 ft. ☐ BL	☐ Yes ☐ No

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Part III. Screening

Complete this Part if Screening is required for any pollutant in Part I above.

Complete this Part to provide the stack parameter and all required building or structure information in order for a screening ambient air quality analysis to be completed. See instructions for an example and use the same stack and unit numbering from *Attachment E211: Stack Parameters Supplemental Application Form* (DEEP-NSR-APP-211).

The screening analysis will be performed by DEEP, however, the applicant may also perform this review and submit it for review and approval. If applicable, please submit a completed analysis as Attachment 218-B.

Unit/ Building No.	Description	Height H (feet)	Length L (feet)	Width W (feet)	Distance to...					
					Stack No. (feet)	Stack No. (feet)	Stack No. (feet)	Stack No. (feet)	Stack No. (feet)	Nearest Property Boundary (feet)
A. Equipment (number and description)										
B. Building or Structure (number and name)										

☐ Check here if additional sheets are necessary, and label and attach them to this sheet.

Part IV. Refined Modeling

If Refined Modeling is required for any pollutant as indicated in Part I above, the applicant shall submit both a paper copy and an electronic copy of the refined modeling analysis as Attachment 218-C. Such analysis shall be performed in accordance with the DEEP [Ambient Impact Analysis Guideline](#) (AIAG).

It is recommended that applicants request a pre-application meeting to specifically discuss refined modeling issues prior to submitting their application. Requests for a modeling pre-application meeting can be sent to Samuel.Sampieri@ct.gov.

Part V. Attachments

Please check the attachments being submitted as verification that all applicable attachments have been submitted with this application form. When submitting such documents, please label the documents as indicated in this Part (e.g., Attachment 218-A, etc.) and be sure to include the applicant's name.

☐ Attachment 218-A:	<i>Plot Plan</i> – Submit a detailed plot plan of the facility with all structures, stack locations, and property lines clearly delineated with the unit, stack and building numbers used throughout this application. In addition, you may submit sketches, aerial photos, or other site plans to aid in the identification of buildings or structures listed in Part III.B and their locations with respect to the stacks listed in Part III.A. You may use the site plan submitted as Attachment C of this application as long as all buildings or structures listed in Part III.B and their locations with respect to the stacks listed in Part III.A are properly identified. IF APPLICABLE
☐ Attachment 218-B:	<i>Screening Analysis</i> – If the applicant opted to perform the screening analysis, submit both a paper copy and an electronic copy of such completed screening analysis for DEEP review and approval. IF APPLICABLE
☐ Attachment 218-C:	<i>Refined Modeling Analysis</i> – Submit both a paper copy and an electronic copy of the completed refined modeling analysis for DEEP review and approval. IF APPLICABLE

ATTACHMENT M – APPLICANT COMPLIANCE INFORMATION



**Connecticut Department of
Energy & Environmental Protection**

Applicant Compliance Information

DEEP ONLY

App. No. _____

Co./Ind. No. _____

Applicant Name: Global New Haven Terminals LLC

Mailing Address: 800 South Street, Suite 500

City/Town: Waltham

State: MA

Zip Code: 02453

Business Phone: 781-398-4132

ext.:

Contact Person: Tom Keefe

Phone: 781-398-4132 ext.

*E-mail: TKeefe@globalp.com

If you answer yes to any of the questions below, you must complete the Table of Enforcement Actions on the reverse side of this sheet as directed in the instructions for your permit application.

- A. During the five years immediately preceding submission of this application, has the applicant been convicted in any jurisdiction of a criminal violation of any environmental law?

☐

Yes

☒

No

- B. During the five years immediately preceding submission of this application, has a civil penalty been imposed upon the applicant in any state, including Connecticut, or federal judicial proceeding for any violation of an environmental law?

☒

Yes

☐

No

- C. During the five years immediately preceding submission of this application, has a civil penalty exceeding five thousand dollars been imposed on the applicant in any state, including Connecticut, or federal administrative proceeding for any violation of an environmental law?

☒

Yes

☐

No

- D. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal court issued any order or entered any judgement to the applicant concerning a violation of any environmental law?

☒

Yes

☐

No

- E. During the five years immediately preceding submission of this application, has any state, including Connecticut, or federal administrative agency issued any order to the applicant concerning a violation of any environmental law?

☒

Yes

☐

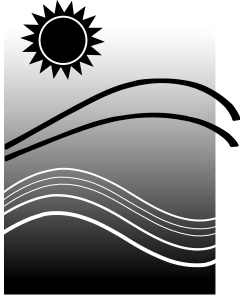
No

Table of Enforcement Actions

(1) Type of Action	(2a) Date Commenced	(2b) Date Terminated	(3) Jurisdiction	(4) Case/Docket/ Order No.	(5) Description of Violation
Consent Order	11/14/2024		CT DEEP	20364	Prior to ownership by Global New Haven Terminals LLC, three IFR tanks were removed without submitting required notice and Tank 123 was constructed prior to obtaining an NSR permit.

☐ Check the box if additional sheets are attached. Copies of this form may be duplicated for additional space.

ATTACHMENT N – ANNOTATED PERMIT



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
TITLE V OPERATING PERMIT**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

Title V Permit Number	117-0257-TV
Client/Sequence/Town/Premises Numbers	6566/1/117/88
Date Issued	May 5, 2022
Expiration Date	May 5, 2027

Corporation:

Gulf Oil Limited Partnership

Premises Location:

New Haven Terminal, 500 Waterfront Street, New Haven, Connecticut 06517

Name of Responsible Official and Title:

Stephen Carten, Vice President Terminal Operations

All the following attached pages, 2 through 41, are hereby incorporated by reference into this Title V permit.

for 
Katherine S. Dykes
Commissioner

May 5, 2022
Date

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Title V Operating Permit

All conditions in Sections III, IV, and VI of this Title V permit are enforceable by both the Administrator and the commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III of this Title V permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms or conditions or requirements contained in Sections III, IV, and VI of this Title V permit in accordance with the Clean Air Act, as amended.

LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
ASTM	American Society for Testing and Materials
CARB	California Air Resources Board
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
EU	Emissions Unit
EPA	Environmental Protection Agency
gal	Gallon
GEU	Grouped Emissions Unit
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
lb	Pound
mg/l	Milligrams Per Liter
mm	Millimeters
NSR	New Source Review
O&M	Operations and Maintenance
psi	Pounds Per Square Inch
psia	Pounds Per Square Inch Absolute
RCSA	Regulations of Connecticut State Agencies
RVP	Reid Vapor Pressure
SIC	Standard Industrial Classification Code
TOC	Total Organic Compound
TP	Test Procedure
VCU	Vapor Combustion Unit
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRU	Vapor Recovery Unit

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business: Bulk Gasoline Distribution

Primary SIC: 5171

Facility Mailing Address: 80 William Street, Suite 400, Wellesley, MA 02481

Telephone Number: (339) 933-7200

B. PREMISES DESCRIPTION

Gulf Oil Limited Partnership (Gulf Oil) operates a New Haven bulk petroleum distribution terminal located on the eastern shore of New Haven Harbor on Long Island Sound. The main operations at the New Haven Terminal include the receipt, storage, and distribution of gasoline distillate, and ethanol products. The products are typically received by marine vessel at the Terminal's vessel dock or by pipeline and then transferred via product piping to aboveground storage vessels in the Terminal's tank farm. Final distribution of products occurs at the Terminal's truck loading rack. The loading rack consists of gasoline, distillate, and ethanol loading bays. Gulf Oil also has the capability of distributing and receiving petroleum products to/from interstate and intrastate locations and neighboring terminals via product pipelines as well as transferring distillate products at its marine vessel dock. However, gasoline is not loaded onto the marine vessels and the vapor pressure for the distillate is below 0.75 psi. Therefore, the Terminal is not subject to 40 CFR 63 Subpart Y—National Emission Standards for Marine Tank Vessel Loading Operations.

Gulf Oil is subject to Sections 22a-174-20(a) Storage of Volatile Organic Compounds and Restrictions for the Reid Vapor Pressure of Gasoline, 22a-174-20(b) Loading of Gasoline and Other Volatile Organic Compounds, and 22a-174-28 Oxygenated Gasoline of the Regulations of Connecticut State Agencies (RCSA).

There are two Vapor Recovery Units (VRU). VRU No. 2 controls the emissions from the loading of gasoline cargo tanks. Gulf Oil operates the loading rack along with the VRU in accordance with Permit No. 117-0241. A smaller unit, VRU No. 1, is a back-up control unit.

Gulf Oil is a major stationary source, as defined in 40 CFR Part 70, for the potential to emit VOC and HAPs in a serious ozone non-attainment area as defined in RCSA Section 22a-174-1(103).

Gulf Oil is also subject to the following federal requirements:

40 CFR 60 Subpart Kb for Volatile Organic Liquid Storage Vessels

40 CFR 60 Subpart XX for Bulk Gasoline Terminals

40 CFR 63 Subpart R for Stage I Gasoline Distribution



40 CFR 60 Subpart
XXa for Bulk
Gasoline Terminals

Section II: Emissions Units Information

A. EMISSIONS UNITS DESCRIPTION

Emissions units are set forth in Table II.A. It is not intended to incorporate by reference these NSR Permits, Registrations, or Regulations into this Title V permit.

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Grouped Emissions Unit/ Emissions Unit		Emissions Unit Description	Control Unit Description	Permit, Registration, or Regulation Number
GEU-1	EU-1	Aboveground Combined Gasoline and Distillate Storage Vessel No. 101 Construction Date: 06/01/1937 Maximum Capacity: 3,337,908 gallons	Fixed roof with an internal floating roof and vapor seals	Registration No. 117-0298-R
	EU-9	Aboveground Combined Distillate and Ethanol Storage Vessel No. 110 Construction Date: 06/01/1936 Maximum Capacity: 854,448 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Registration No. 117-0311-R
	EU-10	Aboveground Combined Gasoline and Distillate Storage Vessel No. 111 Construction Date: 06/01/1938 Maximum Capacity: 3,195,612 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Registration No. 117-0312-R
	EU-11	Aboveground Combined Gasoline and Distillate Storage Vessel No. 112 Construction Date: 06/01/1959 Maximum Capacity: 4,033,008 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Permit No. 117-0352 RCSA §22a-174-20(a) 40 CFR Part 60 Subpart Kb 40 CFR Part 63 Subpart R
	EU-12	Aboveground Combined Gasoline and Distillate Storage Vessel No. 113 Construction Date: 06/01/1958 Maximum Capacity: 4,030,908 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Permit No. 117-0243 RCSA §22a-174-20(a) 40 CFR Part 60 Subpart Kb 40 CFR Part 63 Subpart R
	EU-13	Aboveground Combined Gasoline and Distillate Storage Vessel No. 114 Construction Date: 06/01/1959 Maximum Capacity: 4,046,784 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Permit No. 117-0353 RCSA §22a-174-20(a) 40 CFR Part 60 Subpart Kb 40 CFR Part 63 Subpart R
	EU-14	Aboveground Combined Gasoline, Distillate, and Ethanol Storage Vessel No. 115 Construction Date: 06/01/1958 Maximum Capacity: 1,714,272	Fixed roof with an internal suspended roof with mechanical shoe seals	Registration No. 117-0317-R

Section II: Emissions Units Information

GEU-2	EU-26	Gasoline Loading Operations & Vapor Recovery Unit VRU No. 2 VRU No. 1 Back-Up Construction Date: 10/01/1968	Carbon Adsorption /Absorption	Permit No. 117-0241 RCSA §22a-174-20(a), (b) 40 CFR Part 60 Subpart XX 40 CFR Part 63 Subpart R
	EU-27	Gasoline Loading Operations (Truck Fugitive Emissions) Construction Date: 10/01/1968	Carbon Adsorption /Absorption	Permit No. 117-0241 RCSA §22a-174-20(b) 40 CFR Part 60 Subpart XX 40 CFR Part 63 Subpart R
	EU-28	Distillate Loading Operations (Truck Loading Rack) Construction Date: 10/01/1968 Maximum Capacity: 1,121,280,000 gallons	None	Permit No. 117-0241 RCSA §22a-174-20(b) 40 CFR Part 60 Subpart XX 40 CFR Part 63 Subpart R
GEU-1	EU-28a	Aboveground Combined Gasoline and Distillate Storage Vessel No. 123 Construction Date: TBD Maximum Capacity: 6,400,000 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Permit No. 117-0241 Collateral Condition RCSA §22a-174-20(a) 40 CFR Part 60 Subpart Kb 40 CFR Part 63 Subpart R
	EU-28b	Aboveground Volatile Organic Liquid Storage Vessel No. 104 Construction Date: 06/01/1926 Maximum Capacity: 633,318 gallons	Fixed roof with an internal suspended roof with mechanical shoe seals	Registration No. 117-0303-R Permit No. 117-0241 Collateral Condition RCSA §22a-174-20(a) 40 CFR Part 60 Subpart Kb 40 CFR Part 63 Subpart R
	EU-29	Product Distribution System (Fugitive Emissions) Construction Date: Prior to 1972	None	RCSA §22a-174-20(b) 40 CFR Part 63 Subpart R
	EU-30	Marine Vessel Loading Construction Date: 12/07/2018	None	Permit No. 117-0380

Section II: Emissions Units Information

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B. There are no Alternate Operating Scenarios for the premises.

TABLE II.B: OPERATING SCENARIO IDENTIFICATION	
Emissions Units Associated with the Scenario	Description of Scenario
All emissions units in Table II.A of this Title V permit	All emissions units shall be operated in accordance with applicable permit or terms and conditions of the regulations.

Section III: Applicable Requirements and Compliance Demonstration

The following contains summaries of applicable regulations and compliance demonstration for each identified Emissions Unit regulated by this Title V permit.

A. GROUPED EMISSIONS UNIT 1 (GEU-1): ABOVEGROUND COMBINED GASOLINE AND DISTILLATE STORAGE VESSELS (EU-1, EU-9 through EU-14, EU-28a, and EU-28b)

Subject to: Registration Nos. 117-0298, 117-0311, 117-0312, and 117-0317; Permit Nos. 117-0352, 117-0243, 117-0353, and 117-0241 (Collateral Condition); RCSA §22a-174-20 & §22a-174-28; 40 CFR Part 60 Subpart Kb & 40 CFR Part 63 Subpart R (EU-11, EU-12, EU-13, EU-28a and EU-28b Only)

1. VOC & Oxygenated Gasoline

a. Limitation or Restriction

- i. The Permittee shall install on all storage vessels a fixed roof in combination with an internal floating roof to control VOC in accordance with 40 CFR §60.112b. [40 CFR §63.423]
- ii. The Permittee shall operate each gasoline storage vessel with a vapor loss control device identified in one of the following conditions: [RCSA §22a-174-20(a)(2)]
 - (A) The storage vessel is a pressure vessel capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere;
 - (B) The storage vessel is equipped with a fixed roof and a floating roof that rests on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof edge and tank wall in accordance with 40 CFR §60.112b(a)(1)(ii) and RCSA §22a-174-20(a)(2)(B), i.e. a liquid-mounted seal, two seals, or a mechanical shoe seal. This control equipment is not permitted if the VOC in storage has a vapor pressure of 11.0 pounds per square inch absolute (568 mm Hg) or greater under standard conditions. The Permittee shall operate and maintain such vessels to ensure that: [40 CFR §60.112b(a)(1) and RCSA §22a-174-20(a)(2)(B)]
 - (1) There are no visible holes, tears or other openings in the seal or any seal fabric or materials,
 - (2) All openings except stub drains are equipped with covers, lids or seals such that:
 - (a) The cover, lid or seal is in the closed position at all times except when in actual use,
 - (b) Automatic bleeder vents are closed at all times except when the roof is being floated off or being landed on the roof leg supports, and
 - (c) Rim vents, if provided, are set to open to the manufacturer's recommended setting when the roof is floated off the roof leg supports or cables,
 - (3) All tank gauging and sampling devices are vapor-tight except when tank gauging or sampling is taking place, and
 - (4) No liquid accumulates on the top of the floating roof; or
 - (C) The storage vessel is equipped with a fixed roof and a vapor recovery system that is designed and operated to reduce emissions of VOCs to the atmosphere by at least 95 percent by weight. The Permittee limiting vapor loss according to this method shall perform the following actions no later

Section III: Applicable Requirements and Compliance Demonstration

than March 7, 2024: [RCSA §22a-174-20(a)(2)(C)]

- (1) Equip any gauging or sampling device on the vessel with a leak-free cover that shall be closed at all times, with no visible gaps, except during gauging or sampling,
 - (2) Maintain the fixed roof in a leak-free condition with no holes, tears or uncovered openings,
 - (3) Install and maintain each roof opening in a leak-free condition at all times except when the cover is open for access or when a vent is required to be open to relieve excess pressure or vacuum in accordance with the manufacturer's design, and
 - (4) Once per month, inspect the fittings located on the roof, piping, pressure relief valves and all other valves to ensure they are leak-free using EPA Method 21.
- iii. The external surfaces of any storage tank containing VOCs with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions that has a maximum capacity of 2,000 gallons (7,570 liters) or greater and is exposed to the rays of the sun shall be either mill-finished aluminum or painted and maintained white upon the next painting of the tank or by March 7, 2024, whichever is sooner. The external surfaces of any storage tank that is brought into service after the effective date of RCSA §22a-174-20, that has a maximum capacity of 2,000 gallons or greater and that is exposed to the rays of the sun shall be either mill-finished aluminum or painted and maintained white prior to being filled with any VOC with a vapor pressure of 0.75 pounds per square inch or greater under standard conditions. The requirement to use mill-finished aluminum or white paint shall not apply to words and logograms applied to the external surface of the storage tank for purposes of identification provided such symbols do not cover more than 20 percent of the external surface area of the tank's sides and top or more than 200 square feet (18.6 square meters), whichever is less.
[RCSA §22a-174-20(a)(7)]
- iv. The Permittee shall adhere to the following procedures when performing a roof landing of a floating roof tank:
- (A) When the roof is resting on its leg supports or suspended by cables or hangers, empty and refill the tank as a continuous process; and
 - (B) After the tank is degassed for the first time after the effective date of subsection RCSA §22a-174-20(a), any in-service roof landing shall be with the landed height of the floating roof at its minimum setting. [RCSA §22a-174-20(a)(8)]
- v. The Permittee shall perform degassing and cleaning as follows:
- (A) The Permittee shall not perform degassing of any aboveground storage tank during the period from June 1 through August 31 of any calendar year, except as provided in Section III.A.1.a.v.(B) below.
 - (B) Notwithstanding the above Section III.A.1.a.v.(A), the Permittee may degas an aboveground storage tank at any time for the purpose of performing a repair that is necessary for safe and proper function of the tank.
 - (C) The Permittee shall clean an aboveground storage tank using one or more of the following methods:
 - (1) Using any of the following cleaning agents:

Section III: Applicable Requirements and Compliance Demonstration

- (a) Diesel fuel,
 - (b) A solvent with an initial boiling point of greater than 302 degrees Fahrenheit,
 - (c) A solvent with a vapor pressure less than 0.5 pounds per square inch,
 - (d) A solvent with 50 grams per liter VOC content or less, or
 - (e) Another cleaning agent approved by the commissioner and the Administrator, or
 - (2) Steam cleaning. [RCSA §22a-174-20(a)(9)]
 - vi. Between May 1 and September 15, the Permittee shall not offer for sale, sell or deliver to any dispensing facility in Connecticut, gasoline with a Reid Vapor Pressure in excess of 9.0 psi. [RCSA §22a-174-20(a)(11)]
 - vii. The Permittee shall not provide, deliver, offer for sale, sell, or exchange in trade to any retailer or wholesale purchaser-consumer for use in a Control Area any gasoline which is not oxygenated gasoline during the Control Period for such Control Area except where an emergency exemption pursuant to RCSA §22a-174-28(g) has been issued by the commissioner. Control Period and Control Area are as defined in RCSA §22a-174-28(a). [RCSA §22a-174-28(b)(1)]
- b. Monitoring and Testing Requirements*
- i. The Permittee shall calculate the monthly VOC emissions and speciated HAP emissions, including emissions from roof landings, tank refilling, degassing, cleaning and any other emissions generating events; from all storage vessels using equations in AP-42 Chapter 7 Liquid Storage Tanks. The annual VOC and speciated HAP emissions shall be based on a 12 month rolling aggregate. [RCSA §22a-174-33(j)(l)(K)(ii)]
 - ii. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible. [40 CFR §60.112b(a)(1)(i)]
 - iii. The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the Permittee shall repair the items before filling the storage vessel. [40 CFR §60.113b(a)(1)]
 - iv. For storage vessels equipped with a liquid-mounted or mechanical shoe primary seal, the Permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is

Section III: Applicable Requirements and Compliance Demonstration

unavailable and specify a schedule of actions the Permittee will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

[40 CFR §60.113b(a)(2) and RCSA §22a-174-20(a)(4)]

- v. For storage vessels equipped with a double-seal system, the Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed at least every five years or visually inspect the vessel as specified in Section III.A.1.b.iv of this Title V Permit. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items as necessary so that none of the conditions specified exist before refilling the storage vessel with VOL. In no event shall these inspections occur at intervals greater than 10 years.
[40 CFR §60.113b(a)(3) and 40 CFR §60.113b(a)(4)]
- vi. The Permittee shall, once per month, inspect the fittings located on the roof, piping, pressure relief valves and all other valves to ensure they are leak-free using EPA Method 21.
[RCSA §22a-174-20(a)(2)(C)(iv)]
- vii. For storage vessels operated above or below ambient temperatures, the maximum true vapor pressure shall be calculated by the Permittee based upon the highest expected calendar-month average of the storage temperature. For storage vessels operated at ambient temperatures, the maximum true vapor pressure shall be calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service. [40 CFR §60.116b(e)(1)]
- viii. The Permittee limiting vapor loss in accordance with Section III.A.1.a.ii.(B) of this Title V permit shall conduct inspections as follows: [RCSA §22a-174-20(a)(3)]
 - (A) Once per month visually inspect the floating roof deck, deck fittings and rim seal system through the roof hatches of the fixed roof to determine compliance with the requirements of Section III.A.1.a.ii.(B) of this Title V permit; and
 - (B) Whenever the tank is emptied and degassed, but no less than once every 10 years, conduct an inspection from within the tank by:
 - (1) Visually inspecting the floating roof deck, deck fittings and rim seal system to determine compliance with the requirements of Section III.A.1.a.ii.(B) of this Title V permit and ensure that the seal between the floating roof and the tank wall is uniform, and
 - (2) Physically measuring gaps between any deck fitting gasket, seal or wiper and any surface that such gasket, seal or wiper is intended to seal. Gaps shall not exceed 0.125 inches.
 - (C) The inspection specified in subparagraph (B) above may be performed entirely from the top side of the floating roof as long as there is visual access to all deck components specified in Section III.A.1.a.ii.(B) of this Title V permit.
- ix. Record keeping specified in Section III.A.1.c of this Title V permit shall be sufficient to meet other monitoring requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

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c. Record Keeping Requirements

- i. Monthly emissions, including detailed calculations and records of the inputs to such calculations, shall be recorded by the Permittee for each storage vessel and used in determining the annual emissions in tons on a 12-month rolling aggregate. The records shall be kept for a minimum of five years after such record is made. [RCSA §22a-174-33(j)(l)(K)(ii)]
- ii. Records of the results of all the inspections performed shall be maintained by the Permittee and kept for a minimum of five years after such record is made. Each record shall include, at a minimum, the identification of the storage vessel on which the inspection was performed, whether the storage vessel was filled or emptied and degassed, the date the vessel was inspected, the name of the inspector, a check off list to show what was inspected, and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [40 CFR §60.115b(a)(2) and 40 CFR §63.428(d)]
- iii. For the life of each storage vessel, the Permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. [40 CFR §60.116b(b)]
- iv. The Permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. [40 CFR §60.116b(c)]
- v. The Permittee shall maintain the following records for five years from the date such record is created and make available to the commissioner to inspect and copy upon request:
[RCSA §22a-174-20(a)(10) and RCSA §22a-174-33(j)(l)(K)(ii)]

(A) For a tank equipped with a vapor loss control device specified in Section III.A.1.a.ii of this Title V permit:

- (1) Type of VOC stored, vapor pressure and monthly throughput,
- (2) A Material Safety Data Sheet or Environmental Data Sheet for each VOC stored, and
- (3) Records of the inspections conducted in accordance with Section III.A.1.b.viii of this Title V permit including, but not limited to, date of the inspection, results and corrective actions taken, if applicable,

(B) Documentation of control device efficiency and capture efficiency, if applicable, using an applicable EPA reference method or alternate method as approved by the commissioner and the Administrator,

(C) Date and type of maintenance performed on air pollution control equipment, if applicable,

(D) Documentation of any leak detected pursuant to Section III.A.1.b.v of this Title V permit, including, but not limited to, the date the leak was detected, location of the leak, type of repair made and the date of repair and explanation of the reason for delaying repair, if applicable,

(E) For each floating roof landing event, the dates of the event, the tank contents before landing and after refilling, landed height of the floating roof, height of any liquid remaining in the bottom of the tank after landing, duration of landing and landing emissions calculated using AP-42 Chapter 7 methodology,

(F) Dates of all tank degassing activities performed, tank contents prior to degassing, duration of each

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- degassing event, and degassing emissions calculated using AP-42 Chapter 7 methodology,
- (G) Date, cleaning method and cleaning agents used for any cleaning performed, duration of the cleaning event and emissions from the cleaning event calculated using AP-42 Chapter 7 methodology,
- (H) Any approval by the commissioner or Administrator issued pursuant to this subsection.
- vi. The Permittee shall maintain the following records regarding oxygenated gasoline for two years from the date such record is created and make available to the commissioner for review upon request: [RCSA §22a-174-28(d)(1) and §22a-174-28(d)(4)]
- (A) the owner(s) of the gasoline;
- (B) volume of each delivery going into or out of the terminal;
- (C) type and percentage by volume of oxygenate in the gasoline being delivered if available;
- (D) oxygen content by weight of each delivery received at the terminal;
- (E) the date of such sale or transfer; and
- (F) results of tests for oxygenate, including the test method and sampling procedure and the name of the person or company who performed such tests.
- vii. The Permittee shall maintain copies of transfer documents specified in RCSA §22a-174-28(e) for no less than two years for each delivery of gasoline during the Control Period for their Control Area. Control Period and Control Area are as defined in RCSA §22a-174-28(a). [RCSA §22a-174-28(d)(3) and §22a-174-28(d)(4)]
- viii. The Permittee shall create and maintain records sufficient to demonstrate that the RVP of gasoline sold or delivered between May 1 and September 15 by the Permittee to any dispensing facility in Connecticut, did not exceed 9.0 pounds per square inch. [RCSA §22a-174-4(d)(1)]

d. Reporting Requirements

- i. The Permittee shall furnish the commissioner with a report that describes the control equipment and certifies that the control equipment meets the specification of Section III.A.1.a.ii(B) and Section III.A.1.b.iii of this Title V Permit. This report shall be an attachment to the notification of the actual date of initial startup as required by 40 CFR §60.7(a)(3). [40 CFR §60.115b]
- ii. If any of the conditions described in Section III.A.1.b.iv of this Title V Permit and in accordance with 40 CFR §60.113b(a)(2) are detected during the annual visual inspection, a report shall be furnished to the commissioner within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR §60.115b(a)(3)]
- iii. After each inspection required by Section III.A.1.b of this Title V Permit and in accordance with 40 CFR §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed, a report shall be furnished to the commissioner within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the control equipment specifications of the inspection required by Section III.A.1.b.ii and Section III.A.1.b.v of this Title V Permit and in accordance with 40 CFR §60.113b(a)(3) and list each repair

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made. [40 CFR §60.115b(a)(4)]

- iv. The Permittee shall notify the commissioner in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Sections III.A.1.b.iii & iv of this Title V Permit to afford the commissioner the opportunity to have an observer present. If the inspection required by Sections III.A.1.b.iv of this Title V Permit is not planned and the Permittee could not have known about the inspection 30 days in advance or refilling the tank, the Permittee shall notify the commissioner at least seven days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection as unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that the commissioner receives it at least seven days prior to the refilling. [40 CFR §60.113b(a)(5)]
- v. The Permittee shall notify the commissioner when a tank is emptied and degassed under subparagraph RCSA §22a-174-20(a)(9)(B) within 72 hours of completing the degassing and repair. Such notification shall be submitted to the Compliance Assistance and Coordination Unit of the Bureau of Air Management and shall include the following information:
 - (1) Identification of the facility and the tank degassed,
 - (2) Identification of the VOC stored,
 - (3) An explanation of the need to degas the tank during the period from June 1 through August 31,
 - (4) The date the owner or operator determined that degassing and repair would be necessary,
 - (5) The dates that degassing commenced and was completed, and
 - (6) The date that inspection, repair and refilling was or is anticipated to be completed.

e. Operating and Maintenance Requirements

- i. The Permittee shall ensure that each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [40 CFR §60.112b(a)(1)(iii)]
- ii. The Permittee shall ensure that each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [40 CFR §60.112b(a)(1)(iv)]
- iii. The Permittee shall ensure that the automatic bleeder vents be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. [40 CFR §60.112b(a)(1)(v)]
- iv. The Permittee shall ensure that the rim space vents be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [40 CFR §60.112b(a)(1)(vi)]

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- v. The Permittee shall ensure that each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [40 CFR §60.112b(a)(1)(vii)]
- vi. The Permittee shall ensure that each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [40 CFR §60.112b(a)(1)(viii)]
- vii. The Permittee shall ensure that each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix)]

2. Operating Conditions for EU-11 in Permit No. 117-0352

a. Limitation or Restriction [Permit No. 117-0352]

- i. The Permittee shall not cause or allow EU-11 to exceed the VOC emission limit stated herein at any time:
 - (A) The VOC emissions from Tank 112 shall not exceed 4.56 tons per year.
- ii. The Permittee shall limit the maximum throughput in Tank 112 as follows:
 - (A) 423,062,539 gallons per year
- iii. Maximum Vapor Pressure of Volatile Organic Liquids: < 11 psia, < 568 mmHg

b. Monitoring Requirements

- i. A complete inspection of the cover and seal shall be conducted by the Permittee whenever Tank 112 is emptied for non-operational reasons but in any event at least once per year. [Permit No. 117-0352]
- ii. Record keeping specified in Section III.A.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

- i. The Permittee shall keep records of the average monthly storage temperature, true vapor pressure, monthly fuel throughput and type of volatile organic compounds stored. [Permit No. 117-0352]
- ii. The Permittee shall keep records of annual fuel throughput. Annual fuel throughput shall be based on any consecutive 12 month time period and shall be determined by adding the current month's fuel throughput to that of the previous 11 months. The Permittee shall make these calculations monthly. [Permit No. 117-0352]
- iii. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K)(ii)]

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d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. Operating Conditions for EU-12 in Permit No. 117-0243

a. Limitation or Restriction

- i. The Permittee shall not cause or allow EU-12 to exceed the VOC emission limit stated herein at any time:

(A) The VOC emissions from Tank 113 shall not exceed 10.61 tons per year. [Permit No. 117-0243]

- ii. The Permittee shall limit the maximum throughput in Tank 113 as follows:

(A) 677,532,280 gallons per year [Permit No. 117-0243]

- iii. Maximum Vapor Pressure of Volatile Organic Liquids: < 11 psia, < 568 mmHg [Permit No. 117-0243]

b. Monitoring Requirements

Record keeping specified in Section III.A.3.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

- i. The Permittee shall keep records of annual fuel throughput. Annual fuel throughput shall be based on any consecutive 12 month time period and shall be determined by adding the current month's fuel throughput to that of the previous 11 months. The Permittee shall make these calculations monthly. [RCSA §22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. Operating Conditions for EU-13 in Permit No. 117-0353

a. Limitation or Restriction [Permit No. 117-0353]

- i. The Permittee shall not cause or allow EU-13 to exceed the VOC emission limit stated herein at any time:

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(A) The VOC emissions from Tank 114 shall not exceed 4.54 tons per year.

ii. The Permittee shall limit the maximum throughput in Tank 114 as follows:

(A) 424,507,641 gallons per year

iii. Maximum Vapor Pressure of Volatile Organic Liquids: < 11 psia, < 568 mmHg

b. Monitoring Requirements

Record keeping specified in Section III.A.4.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep records of the average monthly storage temperature, true vapor pressure, monthly fuel throughput and type of volatile organic compounds stored. [Permit No. 117-0353]

ii. The Permittee shall keep records of annual fuel throughput. Annual fuel throughput shall be based on any consecutive 12 month time period and shall be determined by adding the current month's fuel throughput to that of the previous 11 months. The Permittee shall make these calculations monthly. [Permit No. 117-0353]

iii. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. Collateral Conditions for EU-28a and EU-28b in Permit No. 117-0241

a. Limitation or Restriction [Permit No. 117-0241]

i. The Permittee shall not cause or allow EU-28a and EU-28b to exceed the VOC emission limits stated herein at any time:

10.16

(A) The VOC emissions from Tank 123 shall not exceed ~~3.33~~ tons per year.

(B) The VOC emissions from Tank 104 shall not exceed 1.56 tons per year.

ii. The Permittee shall limit the maximum throughput in each tank as follows:

(A) 450,000,000 gallons per year in Tank 123

(B) 75,000,000 gallons per year in Tank 104

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iii. Maximum Vapor Pressure of Volatile Organic Liquids: < 11 psia, < 568 mmHg

b. Monitoring Requirements

Record keeping specified in Section III.A.5.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements [Permit No. 117-0241]

- i. The Permittee shall keep records of annual fuel throughput. Annual fuel throughput shall be based on any consecutive 12 month time period and shall be determined by adding the current month's fuel throughput to that of the previous 11 months. The Permittee shall make these calculations monthly.
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- iii. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or Safety Data Sheets (SDS) for each chemical or solvent used. Such information shall include the quantity and type of each hazardous air pollutant contained in the paint or solvent. For paperwork reduction, these sheets may be kept on computer file in electronic form, access to above paperwork requirement may also be allowed via internet on-demand.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

B. GROUPED EMISSIONS UNIT 2 (GEU-2): CARGO TANK LOADING OPERATIONS (EU-26 through EU-28)

Subject to: Permit No. 117-0241

1. VOC

a. Limitation or Restriction

- i. The material being loaded shall be limited to gasoline, distillate, ethanol products, and associated additives. [Permit No. 117-0241]
- ii. The emissions to the atmosphere from the carbon adsorption system (the Primary & Current Back-Up VRU) due to the loading of liquid product into gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. Upon installation of the New VRU, the Primary VRU shall only be used as a back-up control unit. [Permit No. 117-0241 and 40 CFR §63.422(b)]
- iii. The emissions to the atmosphere from the carbon adsorption system (the New VRU) due to the loading of liquid product into gasoline cargo tanks shall not exceed 2 milligrams of total organic compounds per

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liter of gasoline loaded. [Permit No. 117-0241]

- iv. The fugitive emissions (loading losses) to the atmosphere due to the loading of liquid product into gasoline cargo tanks shall not exceed 13 milligrams of total organic compounds per liter of gasoline loaded. [Permit No. 117-0241]
- v. The total VOC emissions from loading gasoline at the cargo tank loading rack shall not exceed 52.49 tons per year using the following equation: [Permit No. 117-0241]

$$A(13 \text{ mg/l}) + \sum (B(C) + D(E) + F(G)) \leq 52.49$$

where:

A = gasoline throughput (gallons)

B = new VRU throughput (gallons)

C = new VRU stack test results (mg/l)

D = current primary/future backup VRU throughput (gallons)

E = current primary/future backup VRU stack test results (mg/l)

F = current backup VRU throughput (gallons)

G = current backup VRU stack test results (mg/l)

- vi. The Permittee shall operate and maintain, according to the manufacturer's specifications, a VRU that is designed to collect the total organic compounds vapors displaced from the gasoline cargo tanks during product loading. [40 CFR §63.422(b) and 40 CFR §60.502(a)]
- vii. The carbon adsorption system (the VRUs) shall not exceed the operating parameter value for the organic compound concentration parameter described in 40 CFR §63.427(a)(1) and established using the procedures in 40 CFR §63.425(b). [40 CFR §63.427(b)]

b. Monitoring and Testing Requirements

- i. To ensure that the emissions remain at or below 2 mg/l for the new VRU and 10 mg/l for the back-up VRUs of the gasoline loaded, the Permittee shall operate the VRUs and the vacuum assist system (booster blower) in accordance with all manufacturers' specifications and recommendations. Reference methods and test procedures as stated in 40 CFR §§60.503(a) & (c) shall be used by the Permittee to determine compliance with 2 mg/l and 10 mg/l of the gasoline loaded. [Permit No. 117-0241 and 40 CFR §§60.503(a) & (c)]
- ii. The carbon adsorption system (the VRUs) and the booster blower shall be operated by the Permittee to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack. [Permit No. 117-0241 and 40 CFR §60.502(d)]
- iii. Permittee shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous emission monitoring system capable of measuring organic compound concentration in the exhaust air stream on a continuous basis, averaged over a one-hour period. [Permit No. 117-0241 and 40 CFR §63.427(a)(1)]
- iv. At least once every five years, the Permittee shall conduct emissions testing of the VRUs to determine their emissions of TOCs and VOC. Such test shall be conducted in accordance with an Intent-to-Test

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protocol submitted by the Permittee and approved by the commissioner.
[Permit No. 117-0241 and RCSA §22a-174-5(e)(2)]

- v. The Permittee shall conduct a performance test on the VRUs according to the test methods and procedures in 40 CFR §60.503, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under 40 CFR §60.503(b). [40 CFR §63.425(a)]
- vi. Permittee shall meet the performance specifications and quality assurance requirements for the continuous emission monitoring system specified in RCSA §22a-174-4(c)(4).
[RCSA §22a-174-4(c)(4)]
- vii. The Permittee shall monitor and record the quantity of gasoline through the loading rack on a daily basis. [Permit No. 117-0241]

c. Record Keeping Requirements

- i. The Permittee shall record daily VOC emissions and throughput volume and shall record the 365-day rolling total of the VOC emissions and the throughput volumes. [Permit No. 117-0241]
- ii. The Permittee shall keep a record of the dates the temporary VCU was in operation.
[Permit No. 117-0241]
- iii. The Permittee shall keep a record of when the 2 mg/L VRU is installed and operational.
[Permit No. 117-0241]
- iv. The Permittee shall keep a record of each date each 10 mg/L VRU is in operation.
[Permit No. 117-0241]
- v. The Permittee shall keep records of all replacements or additions of components performed on an existing vapor processing system for at least five years.
[40 CFR §60.505(f) and RCSA §22a-174-33(j)(1)(K)(ii)]
- vi. The Permittee shall keep documentation of all testing, calibration, and maintenance of the monitoring and recording equipment. [RCSA §22a-174-33(j)(1)(K)(ii)]
- vii. The Permittee shall keep documentation of all calculations, parameters, assumptions, references, and data, including source test data, relevant to the emission factors used to determine the VOC emission rates from the VRU. [RCSA §22a-174-33(j)(1)(K)(ii)]
- viii. The Permittee shall keep annual estimates of the actual VOC emitted. Such estimates shall use emission factors which are not less than those most recently determined through Department approved source testing of this source where such factors are available. Documentation in support of any assumptions or data used in these estimates shall also be maintained. [RCSA §22a-174-33(j)(1)(K)(ii)]
- ix. The Permittee shall keep an up to date, readily accessible record of the continuous monitoring data measuring organic compound concentration in the exhaust air stream. This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record. [Permit No. 117-0241 and 40 CFR §63.428(c)(1)]
- x. The Permittee shall record and report simultaneously with the notification of compliance status:

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[40 CFR §63.428(c)(2)]

(A) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under 40 CFR §63.425(b);

(B) VRU design; and

(C) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under 40 CFR §63.425(a).

xi. The Permittee shall keep an up-to-date, readily accessible record of the quarterly performance audits performed on the carbon adsorption system and a record to specify which VRU is in operation.

[RCSA §22a-174-33(j)(1)(K)(ii)]

xii. The Permittee shall keep all records for at least five years.

[Permit No. 117-0241 and RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

i. The Permittee shall submit an excess emissions report to the commissioner semiannually in accordance with 40 CFR §63.428(h) and 40 CFR §63.10(e)(3)(i). [40 CFR §63.428(h) and 40 CFR §63.10(e)(3)(i)]

(A) The report shall include each exceedance of the monitored operating parameter value determined under §63.425(b) as well as the monitoring data for the days on which exceedances have occurred, and a description and timing of the steps taken to repair or perform maintenance on the carbon adsorption system. [40 CFR §63.428(h)(1)]

ii. For each performance test conducted, the Permittee shall provide for the commissioner's approval the rationale for the selected operating parameter value, the monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standards of 2 mg/l for the new VRU and 10 mg/l for the back-up VRU of gasoline loaded. [40 CFR §63.425(b)]

iii. Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under Permit No. 117-0241, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner. [Permit No. 117-0241]

2. VAPOR-TIGHT GASOLINE CARGO TANKS

a. Limitation or Restriction

i. The Permittee shall not load gasoline into gasoline cargo tanks at the premises unless the gasoline cargo tanks are vapor-tight and equipped with vapor collection and processing equipment that are compatible with the terminal's carbon adsorption system or vapor collection system (VRU/VCU). [40 CFR §60.502(f)]

ii. The Permittee shall act to assure that the terminal's and the tank truck's vapor collection systems (VRU/VCU) are connected during each loading of a gasoline tank truck at the affected facility.

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Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks. [40 CFR §60.502(g)]

- iii. No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system (VRU/VCU) shall begin to open at a system pressure less than 4,500 pascals (450 mm of water). [40 CFR §60.502(i)]
- iv. The gasoline loading racks shall be equipped with loading arms that have a vapor collection adaptor, pneumatic, hydraulic, or other mechanical means to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid organic compound drainage from the loading device when it is removed from the hatch of any cargo tank or to accomplish complete drainage before such removal. When loading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected. [RCSA §22a-174-20(b)(3)]
- v. The Permittee shall not transfer or allow the transfer of gasoline to or from any delivery vehicle to or from any loading facility with a throughput of less than 10,000 gallons a day and more than 4,000 gallons a day unless the transfer takes place through a submerged fill pipe and a vapor balance system is used. The throughput of a loading facility shall be based upon a thirty day rolling average and once a loading facility exceeds this limit, these requirements shall always apply. [RCSA §22a-174-20(b)(5)]
- vi. The Permittee shall develop a written operation and maintenance (O&M) plan for any equipment used to load or unload gasoline and develop a formal training program implementing the O&M plan for any person who receives gasoline from a loading facility or delivers gasoline to a dispensing facility subject to RCSA §22a-174-30a Stage I Vapor Recovery or any loading facility subject to the above Section III.B.2.a.iii of this Title V Permit. [RCSA §22a-174-20(b)(16)]

b. Monitoring and Testing Requirements

- i. Loading of liquid product into gasoline cargo tanks shall be limited to vapor tight gasoline cargo tanks using the following procedures: [40 CFR §60.502(e) and 40 CFR §63.422(c)(2)]
 - (A) The Permittee shall obtain the vapor tightness documentation as described in the record keeping requirements section of this Title V Permit for each gasoline cargo tank which is to be loaded at the premises. [40 CFR §60.502(e)(1)]
 - (B) The Permittee shall require the gasoline cargo tank's identification number to be recorded as each gasoline cargo tank is loaded at the premises. [40 CFR §60.502(e)(2)]
 - (C) The Permittee shall cross-check each gasoline cargo tank's identification number, with the file of gasoline cargo tank vapor tightness documentation within two weeks after the corresponding gasoline cargo tank is loaded. [40 CFR §60.502(e)(3)]
- ii. The Permittee shall take steps assuring that the non vapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that: [40 CFR §63.422(c)(2)]
 - (A) the gasoline cargo tank meets the applicable test requirements in 40 CFR §63.425(e);
 - (B) for each gasoline cargo tank failing the leak detection test in 40 CFR §63.425(f) or (g) at the facility, the cargo tank either:

- (1) Before repair work is performed on the cargo tank, meets the leak detection test requirements

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in 40 CFR §63.425(g) or (h), or

- (2) After repair work is performed on the cargo tank before or during the leak detection tests in 40 CFR §63.425(g) or (h), subsequently passes the annual certification test described in 40 CFR §63.425(e).
- iii. The Permittee shall not load a gasoline cargo tank unless it is obtained in writing by the Permittee that:
 - (A) the delivery vehicle is designed and maintained to be vapor-tight at all times;
 - (B) the hatches on the delivery vehicle are closed and securely fastened at all times during loading and unloading operations;
 - (C) the pressure relief valves on the cargo tank are set to release at no less than 0.7 pounds per square inch;
 - (D) the vapor laden gasoline delivery vehicle is refilled only at facilities which meet requirements of subdivision RCSA §22a-174-20(b)(2) or (5);
 - (E) the hoses in the vapor balance system are properly connected prior to loading and unloading;
 - (F) the vapor return hoses, couplers and adapters used in gasoline delivery are vapor-tight;
 - (G) the delivery vehicle vapor return equipment is compatible in size and forms a vapor-tight connection with the vapor balance equipment on the dispensing facility storage tank;
 - (H) dispense gasoline to a stationary storage tank having an approved control system in a manner that does not interfere with the collection efficiency on the control system;
 - (I) load and unload in a manner that does not cause the delivery vehicle tank to be subject to a pressure in excess of 18 inches of water or a vacuum in excess of 6 inches of water; and
 - (J) No transfer of gasoline from a delivery vehicle to a dispensing facility stationary storage tank if there are leaks in pressure/vacuum relief valves or hatch covers of the delivery vehicle, in the truck tanks or in associated vapor and liquid lines. [RCSA §22a-174-20(b)(10)]
- iv. The Permittee shall operate the vapor collection and liquid loading equipment to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR §60.503(d). [40 CFR §60.502(h)]
- v. Each calendar month, the Permittee shall conduct a leak inspection of total organic compounds liquid or vapor leaks. This inspection shall be of all equipment in gasoline service and shall occur while gasoline cargo tanks are being loaded. For this inspection, detection methods incorporating sight, sound, or smell are acceptable. Each leak detected shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. [40 CFR §60.502(j)]
- vi. The Commissioner may test a delivery vehicle during loading and unloading operations to evaluate its vapor-tightness by measuring the vapor concentration at a distance of one inch from the source with a combustible gas detector, calibrated with propane using the test procedure described in CARB TP-204.3, Determination of Leaks. Equipment is vapor-tight when a measured vapor concentration

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is less than 14,000 parts per million. [RCSA §22a-174-20(b)(15)]

c. Record Keeping Requirements

- i. The Permittee shall keep records of continuous performance testing performed at any time at the facility under 40 CFR §§63.425(f), (g), and (h). [40 CFR §63.428(b)(2)]
- ii. The Permittee shall keep documentation of the vapor tightness (EPA Reference Method 27) test results for each cargo tank loaded at this facility. [40 CFR §60.502(e)(1)]
- iii. The Permittee shall keep the tank identification number of each gasoline cargo tank as it is loaded at the facility. [40 CFR §60.502(e)(2)]
- iv. The Permittee shall keep records of the annual certification testing performed under 40 CFR §63.425(e) or (i) for each gasoline cargo tank loading at the premises. [40 CFR §63.428(b)(1)]
- v. The Permittee shall keep an up-to-date record of the documentation file for performance and certification testing performed for each gasoline cargo tank loading at the premises. The documentation for each test shall include, as a minimum, the following information: [40 CFR §63.428(b)(3)]
 - (A) Name of test: Annual Certification Test - Method 27 (§63.425(e)(1)); Annual Certification Test - Internal Vapor Valve (§63.425(e)(2)); Leak Detection Test (§63.425(f)); Nitrogen Pressure Decay Field Test (§63.425(g)); Continuous Performance Pressure Decay Test (§63.425(h)); or Railcar Bubble Leak Test Procedure (§63.425(i)).
 - (B) Cargo tank owner's name and address.
 - (C) Cargo tank identification number.
 - (D) Test location and date.
 - (E) Tester name and signature.
 - (F) Witnessing inspector, if any: Name, signature, and affiliation.
 - (G) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.
 - (H) Test results: test pressure; pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument; and leak definition.
- vi. The Permittee shall keep documentation certifying that the Permittee has cross-checked the identification number of each gasoline tank loaded with corresponding vapor tightness test results within two weeks after the tank is loaded unless either of the following conditions is maintained:
 - (A) Cross-checking may be conducted on a quarterly basis if less than an average of one gasoline cargo tank per month over the last 26 weeks is loaded without vapor tightness documentation; or
 - (B) Cross-checking may be conducted semiannually if less than an average of one gasoline cargo tank per month over the last 52 weeks is loaded without the vapor tightness documentation.

If quarterly or semiannual cross-checking reveals that the required conditions are not maintained the

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Permittee shall immediately return to biweekly monitoring until such time as the required conditions are again met. [40 CFR §60.502(e)(3)]

- vii. The Permittee shall keep documentation certifying that the Permittee has notified the owner or operator of each non-vapor-tight gasoline cargo tank loaded within one week of the cross-check which revealed the incident. [40 CFR §60.502(e)(4)]
- viii. The Permittee shall keep documentation certifying that the Permittee has taken steps to assure that a non vapor-tight cargo tank is not reloaded at the facility until proper vapor tightness documentation is obtained. [40 CFR §63.422(c) and 40 CFR §60.502(e)(5)]
- ix. The Permittee shall record all tests performed by owner and operator of a delivery vehicle under subdivision RCSA §22a-174-20(b)(12) and maintain for a minimum of five years from the date of such tests and made available to the commissioner within three business days after the commissioner requests such records. [RCSA §22a-174-20(b)(12)(D)]
- x. The Permittee shall maintain a copy of the O&M plan for any equipment used to load or unload gasoline and training program materials at the facility. [RCSA §22a-174-20(b)(16)(C)]
- xi. The Permittee shall maintain monthly records demonstrating implementation of the O&M plan, including records of persons completing the training program required in Section III.B.2.a.v of the Title V Permit, at the facility. All such records shall be maintained for five (5) years from the date such record is created and made available to the commissioner to inspect and copy upon request. [RCSA §22a-174-20(b)(16)(D)]
- xii. The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27. This documentation shall include, as a minimum, the following information: [40 CFR §60.505(b)]
 - (A) Test title: Gasoline Delivery Tank Pressure Test - EPA Reference Method 27.
 - (B) Tank owner and address.
 - (C) Tank identification number.
 - (D) Testing location.
 - (E) Date of test.
 - (F) Tester name and signature.
 - (G) Witnessing inspector, if any: Name, signature, and affiliation.
 - (H) Test results: Actual pressure change in 5 minutes, mm of water (average for 2 runs).
- xiii. The Permittee shall keep documentation of all notifications required under §60.502(e)(4) on file at the terminal for at least 2 years. [40 CFR §60.505(d)]

d. Reporting Requirements

- i. The Permittee shall report to the commissioner a description of the types, identification numbers, and

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locations of all equipment in gasoline service. [40 CFR §63.428(f)]

- ii. The Permittee shall submit semiannually to the commissioner, a report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the Permittee. The report shall also include the number of equipment leaks at the gasoline cargo tank not repaired within five days after detection. [40 CFR §63.428(g)]
- iii. The Permittee shall submit an excess emissions report to the Administrator/commissioner in accordance with 40 CFR §63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under 40 CFR Part 63 Subpart R, and the following information shall be included in the excess emissions report, as applicable: [40 CFR §63.428(h)]
 - (A) Each instance of a non vapor-tight gasoline cargo tank loading at the facility in which the Permittee failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.
 - (B) Each reloading of a non vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 40 CFR §63.422(c)(2).
 - (C) For each occurrence of an equipment leak for which no repair attempt was made within five days or for which repair was not completed within 15 days after detection:
 - (1) The date on which the leak was detected;
 - (2) The date of each attempt to repair the leak;
 - (3) The reasons for the delay of repair; and
 - (4) The date of successful repair.
- iv. The Permittee shall notify the owner or operator of each non-vapor-tight gasoline tank truck loaded at the affected facility within one week of the documentation cross-check. [40 CFR §60.502(e)(4)]
- v. If the Permittee or the owner or operator of any delivery vehicle performs a test or retest required in reference to RCSA §22a-174-20(b)(12) or §22a-174-20(b)(13) in this Title V permit, they shall notify the Department's Bureau of Air Management, Field Operations Section of the time and location of the test or retest at least 48 hours in advance. [RCSA §22a-174-20(b)(14)]

C. EMISSION UNIT 29 (EU-29): PRODUCT DISTRIBUTION SYSTEM

Subject to: RCSA §22a-174-20; 40 CFR Part 63 Subpart R

1. VOC

a. Limitation or Restriction

- i. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for over a six hour period in accordance with RCSA §22a-174-20(b)(2)(B). The Permittee shall take measures including, but not limited to, the following: [40 CFR §63.424(g)]

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- (A) Minimize gasoline spills;
- (B) Clean up spills as expeditiously as practicable;
- (C) Cover all open gasoline containers with a gasketed seal when not in use; and
- (D) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

b. Monitoring Requirements

- i. The Permittee shall perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Each piece of equipment shall be inspected during the loading of a gasoline cargo tank. [40 CFR §63.424(a)]
- ii. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than five calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak. [40 CFR §63.424(c)]
- iii. Delay of repair of leaking equipment will be allowed upon a written demonstration, to the commissioner's satisfaction that the repair within 15 days is not feasible. The Permittee shall provide the reason(s) a delay is needed and the expected date for the completion of each repair. [40 CFR §63.424(d)]

c. Record Keeping Requirements

- i. The Permittee shall sign a logbook at the completion of each inspection and indicate when the inspection was done, who did the inspection, specifically what was inspected, and the results of the inspection. A section of the log shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the premises. [40 CFR §63.424(b)]
- ii. A record of each monthly leak inspection required shall be kept by the Permittee on file at the premises for at least five years. Inspection records shall include, as a minimum, the following information: [RCSA §22a-174-33(j)(1)(K)(ii) and RCSA §22a-174-33(o)(2)]

(A) Date of inspection;

(B) Findings from the inspection;

(C) Leak determination method;

(D) Corrective action taken (dates each leak repaired; reasons for any repair interval in excess of 15 days); and

(E) Inspector name and signature.

- iii. The Permittee shall record the following in the log book for each leak detected: [40 CFR §63.424(c) and 40 CFR §63.428(e)]

(A) The equipment type and identification number of the equipment where a leak is located;

(B) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or

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smell);

(C) The date the leak was detected and the date of each attempt to repair the leak;

(D) Repair methods applied in each attempt to repair the leak;

(E) If the leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay;

(F) The expected date of successful repair of the leak if the leak is not repaired within 15 days; and

(G) The date of successful repair of the leak.

d. Reporting Requirements

i. The Permittee shall include in a semiannual report to the commissioner the following information, as applicable: [40 CFR §63.428(e), 40 CFR §§63.424(a), (b), and (c), and 40 CFR §60.502(j)]

(A) Each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the premises;

(B) The equipment type and identification number for each leak that is detected;

(C) The nature of the leak (i.e. vapor or liquid) and the method of detection (i.e. sight, sound, or smell);

(D) The date the leak was detected and the date of each attempt to repair the leak;

(E) Repair methods applied in each attempt to repair the leak;

(F) “Repair delayed” and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;

(G) The expected date of successful repair of the leak if the leak is not repaired within 15 days;

(H) The date of successful repair of the leak; and

(I) The number of equipment leaks not repaired within five days after detection, the location and the size of such leaks.

ii. The Permittee shall report to the commissioner a description of the types, identification numbers, and locations of all equipment in gasoline service. [40 CFR §63.428(f)]

D. EMISSIONS UNIT 30 (EU-30): MARINE VESSEL LOADING OPERATION

Subject to: Permit No. 117-0380

1. Operating Conditions

a. Limitation or Restriction

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- i. The Permittee shall only load distillate products containing biodiesel, diesel, and No. 2 fuel oil.
[Permit No. 117-0380]
- ii. The Permittee shall load distillate products with the vapor pressure below 0.75 psi.
[Permit No. 117-0380]
- iii. The Permittee shall load distillate products containing less than 10% benzene content, by weight.
[Permit No.117-0380]
- iv. The Permittee shall adhere to the following maximum pump rates:
[Permit No. 117-0380]

(A) Single Connection

- (1) 588,000 gal/hr
- (2) 14,000 barrels/hr

(B) Two Connections (each)

- (1) 294,000 gal/hr
- (2) 7,000 barrels/hr

- v. The Permittee shall adhere to the following maximum consecutive 12 month loading of distillate products: [Permit No. 117-0380]
 - (A) 169,344,000 gal
 - (B) 4,032,000 barrels
- vi. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 117-0380]

b. Monitoring Requirements

- i. The Permittee shall continuously monitor distillate product dispersion using a non-resettable totalizing fuel meter. [Permit No. 117-0380]
- ii. The Permittee shall continuously monitor the hourly, monthly and consecutive 12 month distillate product dispersion rate in gallons or barrels. [Permit No. 117-0380]
- iii. The Permittee shall monitor the vapor pressure of each distillate product loaded, in psi.
[Permit No. 117-0380]
- iv. The Permittee shall monitor the benzene content of each distillate product loaded, in percent.
[Permit No. 117-0380]

c. Record Keeping Requirements

- i. The Permittee shall keep records of monthly and consecutive 12 month distillate product dispersion both by type and combined total. The consecutive 12 month distillate product dispersion shall be

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determined (for each type and combined) by adding the current month's distillate product dispersion to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0380]

- ii. The Permittee shall keep a record of the vapor pressure of each distillate product loaded, in psi. [Permit No.117-0380]
- iii. The Permittee shall keep a record of the benzene content of each distillate product loaded, in percent. [Permit No. 117-0380]
- iv. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 117-0380]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. VOC

a. Limitation or Restriction

The VOC emissions from vessel loading shall not exceed 4.90 lb/hr and 0.71 ton per year. [Permit No. 117-0380]

b. Monitoring Requirements

- i. Record keeping specified in Section III.D.2.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33. [RCSA §22a-174-33(j)(l)(K)(ii)]
- ii. The Permittee shall continuously monitor distillate product dispersion using a non-resettable totalizing fuel meter. [Permit No. 117-0380]

c. Record Keeping Requirements

- i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for the pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 117-0380]
- ii. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 117-0380]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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E. 112(r) ACCIDENTAL RELEASE REQUIREMENTS

Should any of the units, as defined in 40 CFR section 68.3, become subject to the accidental release prevention regulations in part 68, then the Permittee shall submit a risk management plan pursuant to 40 CFR section 68.12 by the date specified in section 68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR section 70.6(c)(5).

F. PREMISES-WIDE GENERAL REQUIREMENTS

1. **Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).
2. **Emission Testing:** The Permittee shall comply with the procedures for sampling, emission testing, sample analysis, and reporting as set forth in RCSA §22a-174-5.
3. **Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
4. **Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.
5. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
6. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
7. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
8. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
9. **Variances:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.
10. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
11. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
12. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
13. **Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18.
14. **Fuel Sulfur Content:** The Permittee shall not use No. 2 heating oil that exceeds fifteen parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B).

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- 15. Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §§22a-174-19, 22a-174-19a and 22a-174-19b, as applicable.
- 16. Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
- 17. Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e and §22a-174-22f.
- 18. Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).
- 19. Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- 20. Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.
- 21. Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

Section IV: Compliance Schedule

Section IV: Compliance Schedule
No Steps are required for achieving compliance at this time.

Section V: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Energy and Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

- A.** This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Nothing in this Title V permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- C.** Additional Emissions Units
 - 1.** The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.
 - 2.** Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:
 - a. an insignificant emissions unit as defined in RCSA §22a-174-33; or
 - b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).
 - 3.** For each emissions unit, or group of emissions units, on such record, the record shall include, as available:
 - a. Description, including make and model;
 - b. Year of construction/installation or if a group, range of years of construction/installation;
 - c. Maximum throughput or capacity; and
 - d. Fuel type, if applicable.
- D.** Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23.
- E.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.
- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.

Section VI: Title V Requirements

The Administrator of the United States Environmental Protection Agency and the Commissioner of the Department of Energy and Environmental Protection have the authority to enforce the terms and conditions contained in this section.

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the commissioner under this Title V permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of the Director; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be submitted per the procedure required by the applicable requirement or otherwise in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (Mailcode: 04-2), Boston, Massachusetts 02109, Attn: Air Clerk.

B. CERTIFICATIONS [RCSA §22a-174-33(b)]

In accordance with RCSA §22a-174-33(b), any report or other document required by this Title V permit and any other information submitted to the commissioner or Administrator shall be signed by an individual described in RCSA §22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA §22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA §22a-174-2a(a)(4):

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.”

C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)]

For purposes of signing any Title V-related application, document, report or certification required by RCSA §22a-174-33, any corporation's duly authorized representative may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to RCSA §22a-174-33 and either:

Section VI: Title V Requirements

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or
2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:
 - i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,
 - ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and
 - iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

D. ADDITIONAL INFORMATION [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA §22a-174-2a(a)(5).

E. MONITORING REPORTS [RCSA §22a-174-33(o)(1)]

A Permittee, required to perform monitoring pursuant to this Title V permit, shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

1. Each deviation caused by upset or control equipment deficiencies; and
2. Each deviation of a permit requirement that has been monitored by the monitoring systems required under this Title V permit, which has occurred since the date of the last monitoring report; and
3. Each deviation caused by a failure of the monitoring system to provide reliable data.

F. PREMISES RECORDS [RCSA §22a-174-33(o)(2)]

Unless otherwise required by this Title V permit, the Permittee shall make and keep records of all required

Section VI: Title V Requirements

monitoring data and supporting information for at least five years from the date such data and information were obtained. The Permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

1. The type of monitoring or records used to obtain such data, including record keeping;
2. The date, place, and time of sampling or measurement;
3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
4. The date(s) on which analyses of such samples or measurements were performed;
5. The name and address of the entity that performed the analyses;
6. The analytical techniques or methods used for such analyses;
7. The results of such analyses;
8. The operating conditions at the subject source at the time of such sampling or measurement; and
9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

G. PROGRESS REPORTS [RCSA §22a-174-33(q)(1)]

The Permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with RCSA §22a-174-2a(a)(5). Such report shall describe the Permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V permit. Such progress report shall:

1. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has met, and the dates on which they were met; and
2. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the Permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA §22a-174-33(q)(1) shall be simultaneously submitted by the Permittee to the Administrator.

H. COMPLIANCE CERTIFICATIONS [RCSA §22a-174-33(q)(2)]

The Permittee shall, on March 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a written compliance certification certified in accordance with RCSA §22a-174-2a(a)(5) and which includes the information identified in 40 CFR §§70.6(c)(5)(iii)(A) to (C), inclusive.

Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be

Section VI: Title V Requirements

simultaneously submitted by the Permittee to the Administrator.

I. PERMIT DEVIATION NOTIFICATIONS [RCSA §22a-174-33(p)]

Notwithstanding Section VI.E. of this Title V permit, the Permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

1. For any hazardous air pollutant, no later than 24 hours after such deviation commenced; and
2. For any other regulated air pollutant, no later than ten days after such deviation commenced.

J. PERMIT RENEWAL [RCSA §22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA §§22a-174-33(g), -33(h), and -33(i).

K. OPERATE IN COMPLIANCE [RCSA §22a-174-33(j)(1)(C)]

The Permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of this Title V permit, and any other applicable provisions of law. In addition, any noncompliance constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

L. COMPLIANCE WITH PERMIT [RCSA §22a-174-33(j)(1)(G)]

This Title V permit shall not be deemed to:

1. Preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with RCSA §§22a-174-33(j)(1)(I) and -33(j)(1)(P), provided that the commissioner's prior written approval of the creation, use, or trading is obtained;
2. Authorize emissions of an air pollutant so as to exceed levels prohibited pursuant to 40 CFR Part 72;
3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or
4. Impose limits on emissions from items or activities specified in RCSA §§22a-174-33(g)(3)(A) and -33(g)(3)(B) unless imposition of such limits is required by an applicable requirement.

M. INSPECTION TO DETERMINE COMPLIANCE [RCSA §22a-174-33(j)(1)(M)]

The commissioner may, for the purpose of determining compliance with this Title V permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under such permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

Section VI: Title V Requirements

N. PERMIT AVAILABILITY

The Permittee shall have available at the facility at all times a copy of this Title V permit.

O. SEVERABILITY CLAUSE [RCSA §22a-174-33(j)(1)(R)]

The provisions of this Title V permit are severable. If any provision of this Title V permit or the application of any provision of this Title V permit to any circumstance is held invalid, the remainder of this Title V permit and the application of such provision to other circumstances shall not be affected.

P. NEED TO HALT OR REDUCE ACTIVITY [RCSA §22a-174-33(j)(1)(T)]

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.

Q. PERMIT REQUIREMENTS [RCSA §22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the Permittee's obligation to comply with this Title V permit.

R. PROPERTY RIGHTS [RCSA §22a-174-33(j)(1)(W)]

This Title V permit does not convey any property rights or any exclusive privileges. This Title V permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby, including CGS §4-181a(b) and RCSA §22a-3a-5(b). This Title V permit shall neither create nor affect any rights of persons who are not parties to this Title V permit.

S. ALTERNATIVE OPERATING SCENARIO RECORDS [RCSA §22a-174-33(o)(3)]

The Permittee shall, contemporaneously with making a change authorized by this Title V permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES [RCSA §22a-174-33(r)(2)]

The Permittee may engage in any action allowed by the Administrator in accordance with 40 CFR §§70.4(b)(12)(i) to (iii)(B), inclusive, and 40 CFR §§70.4(b)(14)(i) to (iv), inclusive, without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

1. Constitute a modification under 40 CFR Part 60, 61 or 63;
2. Exceed emissions allowable under the subject permit;
3. Constitute an action which would subject the Permittee to any standard or other requirement pursuant to 40 CFR Parts 72 to 78, inclusive; or
4. Constitute a non-minor permit modification pursuant to RCSA §22a-174-2a(d)(4).

Section VI: Title V Requirements

At least seven days before initiating an action specified in RCSA §22a-174-33(r)(2)(A), the Permittee shall notify the Administrator and the commissioner in writing of such intended action.

U. INFORMATION FOR NOTIFICATION [RCSA §22a-174-33(r)(2)(A)]

Written notification required under RCSA §22a-174-33(r)(2)(A) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The Permittee shall thereafter maintain a copy of such notice with the Title V permit. The commissioner and the Permittee shall each attach a copy of such notice to their copy of the Title V permit.

V. TRANSFERS [RCSA §22a-174-2a(g)]

No person other than the Permittee shall act or refrain from acting under the authority of this Title V permit unless such permit has been transferred to another person in accordance with RCSA §22a-174-2a(g).

The proposed transferor and transferee of a permit shall submit to the commissioner a request for a permit transfer on a form provided by the commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS §22a-6o.

W. REVOCATION [RCSA §22a-174-2a(h)]

The commissioner may revoke this Title V permit on his own initiative or on the request of the Permittee or any other person, in accordance with CGS §4-182(c), RCSA §22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The Permittee requesting revocation of this Title V permit shall state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

This Title V permit may be modified, revoked, reopened, reissued, or suspended by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(r), CGS §22a-174c, or RCSA §22a-3a-5(d).

X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.

ATTACHMENT R – ENVIRONMENTAL JUSTICE PLAN AND
FINAL REPORT APPROVAL AND ENVIRONMENTAL JUSTICE
PLAN



May 9, 2025

Mr. Tom Keefe
Global New Haven Terminal, LLC
800 South Street, STE 500
Waltham, MA 02453

Re: Tentative Approval of the Environmental Justice Public Participation Plan for Global New Haven
Terminal LLC, 500 Waterfront Street, New Haven, CT

Dear Mr. Keefe:

The Environmental Justice Public Participation Plan (Plan) for the New Haven Terminal, Inc. was received on April 28, 2025. The Plan was subsequently revised and resubmitted on May 6, 2025. A review of the intended public outreach, notice and engagement information submitted in Parts I, II, III and IV of the Plan satisfy the requirements under Sec. 22a-20a of the Connecticut General Statutes and the Connecticut Department of Energy and Environmental Protection's Environmental Equity Policy. The date, time and meeting location were confirmed with the Office of Equity and Environmental Justice staff. The Public Information meeting will take place in the English language on June 23, 2025, at 6:00 PM and in Spanish language on June 24, 2025, at the New Haven City Hall, CT. The public notice of the meeting will be published in English in the New Haven Register on June 9, 2025, and in Spanish in La Voz Hispana the week of June 9, 2025. A video recording of the meeting is required.

The Environmental Justice Public Participation Plan is Tentatively Approved.

Sincerely,

Edith Pestana *(electronic signature)*

Edith Pestana, MS, MPH

Cc: Laurie L. Parry
Jaimeson Sinclair



August 12, 2025

Mr. Tom Keefe
Global New Haven Terminal, LLC
800 South Street, STE 500
P.O. Box 9161
Waltham, MA 02453

Re: Approval of the Environmental Justice Public Participation Plan for Global New Haven Terminal LLC, 500 Waterfront Street, New Haven, CT

Dear Mr. Keefe:

The Environmental Justice Public Participation Plan Final Report (Final Report) for Global New Haven Terminal, LLC was received on July 23, 2025. A review of the documented public outreach and engagement information submitted in Parts I, II, III and IV in the Final Report satisfy the requirements under Sec. 22a-20a of the Connecticut General Statutes (CGS) and the Connecticut Department of Energy and Environmental Protection's Environmental Equity Policy. The meeting was scheduled and properly noticed in compliance with CGS 22a-20a. Two meetings were held, one in English language on June 23, 2025, and in Spanish on June 24, 2025, at 6 PM at the New Haven City Hall, CT. The notices were published in English in the New Haven Register on June 9, 2025, and in Spanish in La Voz Hispana the week of June 9, 2025. A video recording of the meeting is included in the Final Report.

The Environmental Justice Public Participation Plan Final Report is Approved.

Sincerely,

Edith Pestana (electronic signature)

Edith Pestana, MS, MPH

Cc: Laurie L. Parry
Jaimeson Sinclair
Steven T. Geary

July 23, 2025

Connecticut Department of Energy and Environmental Protection
Office of Environmental Justice – EJ Program
79 Elm Street
Hartford, CT 06106

RE: Global New Haven Terminal, New Source Review – Environmental Justice Public Participation Report

Introduction

Global New Haven Terminals LLC and Global Companies LLC (collectively “Global”) prepared this Public Participation Report in accordance with the requirements of the Connecticut Environmental Justice Law (Connecticut General Statutes §22a-20a) and the 2024 Environmental Justice Public Participation Guidance issued by the Connecticut Department of Energy and Environmental Protection (CT DEEP).

This Report documents the public engagement activities conducted in support of Global’s application for a New Source Review (NSR) air permit for the re-permitting of Tank 123 at the Global New Haven Terminal, located at 500 Waterfront Street in New Haven, Connecticut. The project involves transitioning Tank 123 from distillate service to gasoline service. In addition to the tank transition, the project also includes modifications to the terminal’s truck loading rack to support the change in service and ensure continued compliance with applicable air quality control requirements.

To ensure compliance with CT DEEP regulations and support meaningful engagement with Environmental Justice (EJ) communities, Global developed and implemented a DEEP-approved Environmental Justice Public Participation Plan (EJ PPP) (**See Attachment A – EJ PPP**). That plan included a range of bilingual communications, direct outreach, and community-based notifications to inform and involve nearby residents and stakeholders.

As part of this plan, Global hosted two in-person Informational Public Meetings at New Haven City Hall (165 Church Street):

- An English-language meeting held on June 23, 2025
- A Spanish-language meeting held on June 24, 2025

These meetings were publicly noticed in both English and Spanish and supported by a multi-channel outreach strategy, including:

- Newspaper advertisements published in two different newspapers (**See Attachment B – Newspaper Notices**):
 - o New Haven Register (English): Published from June 16–20, 2025
 - o La Voz Hispana (Spanish), Published June 19, 2025
- Radio Announcements: (week of June 17, 2025):
 - o WNPR (English) - (Click [here](#) for announcement)

- o La Bomba FM (Spanish) - (Click [here](#) for announcement)
- Mail and email notices to residents and property owners within a 1,500-foot radius of the facility (See **Attachment C – Public Notice and Address List**)
- On-site signage and flyers posted at community locations—including neighborhood hubs and municipal buildings—in both English and Spanish. (See **Attachment D – Site Signage Photos**)
- Online notifications via Global’s website directing stakeholders to meeting details. (www.globalp.com/terminals/new-haven)
- Direct outreach to local elected officials and community-based organizations to ensure broad awareness.

Both meetings were structured to facilitate inclusive, transparent engagement. Information was presented in clear language, translated materials were available, and Spanish-speaking staff were present to support participation by non-English speakers. These efforts reflect Global’s commitment to proactive outreach, environmental equity, and regulatory compliance under the state’s Environmental Justice framework.

Affidavit Of Compliance

In accordance with the Connecticut General Statutes §22a-20a and the 2024 Environmental Justice Public Participation Guidance issued by CT DEEP, Global has executed an affidavit affirming full compliance with statutory and regulatory requirements related to public participation. This includes the preparation and implementation of an approved Environmental Justice Public Participation Plan, the provision of bilingual outreach and notices, and the hosting of two in-person Informational Public Meetings—one in English and one in Spanish.

The signed affidavit, executed by Sean T. Geary, Chief Legal Officer of Global Partners LP, is included as **Attachment E** in this Report. It serves as formal certification of Global’s adherence to applicable Environmental Justice public engagement requirements for the New Source Review permit application.

Summary of Public Comment and Questions

As required under Connecticut General Statutes §22a-20a and DEEP’s 2024 Environmental Justice Public Participation Guidance, Global collected and reviewed both verbal and written public input submitted during the environmental justice outreach process.

Verbal Comments:

At the English-language informational public meeting held on June 23, 2025, four questions were raised by a member of the public, Aaron Goode of the New Haven Environmental Justice Network. The questions and Global’s responses are summarized below and documented in **Attachment F – Meeting Q&A Notes**:

- **Flood Preparedness and Stormwater Protection:** The commenter inquired about potential flood risks, particularly during a Category 5 hurricane. Global responded that as part of the Tank 123 reconfiguration, the secondary containment dike was redesigned and lined to

meet current regulatory requirements. In addition, the project will comply with new Connecticut stormwater pollution prevention standards.

- **Biodiesel Availability:** The commenter asked whether biodiesel is offered at the terminal. Global clarified that biodiesel is not handled at the New Haven facility but is available through Tankage that Global leases at the nearby East Haven terminal.
- **Vapor Recovery Operations:** The commenter requested an explanation of the vapor recovery process. Global provided an overview of the vapor recovery system, which captures and controls emissions from loading of tanker trucks.
- **Product Movement and Logistics:** The commenter asked how products are transported to and from the facility. Global confirmed that petroleum products are primarily received via marine vessel and distributed by truck.

Written Comments:

Two handwritten comments were submitted via US Mail (**See Attachment G – Written Comments**). The comments did not include questions or specific feedback on the project design but expressed general opposition to the permit request, citing concerns about climate change. These comments were noted and recorded as part of the public input process. No response was required.

Responses to Public Comments and Changes to the Activity

Global reviewed all verbal and written comments submitted as part of the public participation process for the New Source Review (NSR) air permit application related to Tank 123 at the New Haven Terminal.

As outlined in the previous section, questions received at the public meeting were general in nature and were addressed in real time by Global representatives. These included inquiries related to flood preparedness, stormwater protection, biodiesel handling, vapor recovery operations, and product logistics.

Two additional written comments were submitted at the public meeting, expressing general opposition to the project based on broader climate concerns. These comments were reviewed and acknowledged; however, they did not include specific technical concerns, questions, or requests for changes to the project.

No changes were made to the proposed activity as a result of the public input received. Global's proposed project remains consistent with the information presented in the Environmental Justice Public Participation Plan and at the Informational Public Meetings. The project continues to meet all applicable regulatory requirements and permitting standards.

Community Environmental Benefit Agreement

In accordance with Connecticut General Statutes §22a-20a and DEEP's Environmental Justice Public Participation Guidance, Global New Haven Terminals LLC has entered into a Community Environmental Benefit Agreement (CEBA) with the City of New Haven.

This agreement reflects Global's commitment to mitigating potential impacts associated with the proposed activity and to providing direct environmental and community benefits to affected Environmental Justice populations. The CEBA was developed through a collaborative process involving city officials and community leaders and is included as **Attachment H** to this report.

Conclusion

Global New Haven Terminals LLC and Global Companies LLC have fulfilled the public participation obligations required under Connecticut General Statutes §22a-20a and the 2024 Environmental Justice Public Participation Guidance. These efforts included the development and execution of a DEEP-approved Environmental Justice Public Participation Plan, bilingual outreach, and the facilitation of two well-publicized informational meetings—one in English and one in Spanish—to ensure inclusive, accessible communication with affected Environmental Justice communities.

Global received one verbal comment during the English-language public meeting and two handwritten comments via US Mail. All comments were reviewed and are addressed in this report. No material objections or requests for changes to the proposed activity were raised; therefore, no modifications to the project have been made.

Global has also executed a Community Environmental Benefit Agreement (CEBA) with the City of New Haven to further demonstrate its commitment to environmental stewardship and corporate responsibility. The CEBA outlines a package of negotiated benefits and is included in this report as Attachment H.

For additional information regarding the public participation process or the proposed project, please contact:

Sean T. Geary
Chief Legal Officer
Global New Haven Terminals LLC
Global Companies LLC
Sgeary@globalp.com
617.803.5549

Enclosures:

Attachment A – Environmental Justice Public Participation Plan
Attachment B – Newspaper Notices
Attachment C – Public Notice and Address List
Attachment D – Site Signage Photographs
Attachment E – Affidavit of Compliance
Attachment F – Meeting Q&A Notes
Attachment G – Written Public Comments
Attachment H – Community Environmental Benefit Agreement (CEBA)

Attachment A

Environmental Justice Public Participation Plan



Connecticut
**Department of Energy &
Environmental Protection**
Office of Equity and Environmental Justice

Environmental Justice Public Participation Plan

Before an applicant files a permit application with the Department, the applicant must submit an Environmental Justice Public Participation Plan (the “Plan”) and receive approval *for **any affecting facility***, in accordance with section 22a-20a of the Connecticut General Statutes (CGS), *that is proposed to be located or expanded in an **environmental justice community***. For definitions and further guidance on the underlying EJ statute, please refer to the Department’s [Environmental Justice Guidance Document](#).

If a Plan is required for your project, please complete and submit this form to the addresses indicated at the end of this form.

Once the Department has **tentatively approved** a Plan, the applicant is responsible for fully implementing that Plan. Before the Department issues a Notice of Tentative Determination, the applicant must submit a final report, documenting the implementation of the Plan and receiving Department **Approval**. If any of the information changes that is to be supplied in this form, or in the tentatively approved Plan, the applicant must contact the Office of Equity and Environmental Justice to determine if the initial Plan must be amended.

Please label all supporting documents to correspond with the outline provided in this document, e.g., “Part II A: Project Summary”.

Note:

1. All submitted plans will be made publicly available.
2. All citations herein are to CGS § 22a-20a, Connecticut’s Environmental Justice statute. This form is designed to guide applicants in preparing a public participation plan. Applicants should refer to the appropriate statutes and regulations for more detail. It is the applicants’ responsibility to obtain and comply with all relevant state, federal, and local laws.
3. This form is now in Version 2.0, last edited in January 2024. DEEP welcomes feedback on the usability of the form.

Part I: Proposed Applicant Information

1. APPLICANT INFORMATION

Applicant: **GLOBAL NEW HAVEN TERMINALS LLC**

Mailing Address: **800 SOUTH STREET, STE 500**

City/Town: **WALTHAM**

State: **MA** Zip Code: **02453**

Business Phone: **781.894.8800**

ext.

Contact Person: **Tom Keefe**

Phone: **781.983.0365**

Email: **Tkeefe@globalp.com**

Applicant (check one): ☐ individual ☒ company ☐ federal agency, ☐ state agency ☐ municipality

If a company, list company type (e.g., corporation, limited partnership, etc.): **LLC**

☐ Check if any co-applicants. If so, attach additional sheet(s) with the required information as requested above.

Part I: Proposed Applicant Information *(continued)*

2. WILL YOUR PERMIT APPLICATION INVOLVE: (check one):

- ☐ A new facility ☐ A new permit ☒ An expansion of a facility

3. FACILITY NAME AND LOCATION

Name of facility: GLOBAL NEW HAVEN TERMINAL

Street Address or Location Description: 500 WATERFRONT STREET

City/Town: NEW HAVEN

State: CT

Zip Code: 06512

Tax Assessor's Reference: Map 081

Block 0954

Lot 0200

Part II: Informal Public Meeting Requirements

Complete this part, identifying the time and place of the proposed informal meeting required by subsection (b)(2) and the methods that will be used to publicize it. Please note that, pursuant to subsection (b)(6), the Department cannot take any action on the applicant's permit earlier than sixty days after the informal public meeting takes place.

A. Identify Date, Time, and Place of Informal Public Meeting

Identify a date, time, and place where an informal public meeting will be held. These proposals must take into consideration the convenience of the residents of the affected environmental justice community (subsection (b)(2)). Be sure to confirm the **date, time, and place** of the meeting with the Office of Equity and Environmental Justice (860-424-3044 or edith.pestana@ct.gov).

- Approximate Date: **Meeting (English) June 23, 2025, Meeting (Spanish language) June 24, 2025**
- Place: **New Haven City Hall, 165 Church Street, New Haven, CT 06512**
- Time: Both meetings will be held at 6:00 PM
 - The meetings will be announced in languages most frequently used by community members (Spanish and English) through local church communications, radio stations, and community newspapers (see specific publications and stations below).
 - Translation/engagement: The applicant's consultant team will provide engineers and project staff whose native language is Spanish or will utilize interpreters to explain the overall project and answer questions for people who may be more comfortable in that language, if appropriate to the audience.

Refer to Part III of this form for information to be presented at the meeting.

Part II: Informal Public Meeting Requirements *(continued)*

B. Identify Communication Methods by Which to Publicize the Public Meeting

1. At a minimum, applicants are required to publish notice of the date, time, and nature of the informal public meeting (subsection (b)(4)).
 - Name of newspaper(s):
 - **The New Haven Register, 100 Gando Drive, New Haven, CT 06513**
 - **La Voz Hispana, 51 Elm St., #307, New Haven, CT 06510**
 - Date(s) notice will be published: **June 9, 2025, for the daily publication and the week of June 9-14, 2025, for the weekly publication.**
 - Format – **One-quarter page advertisement published in English and Spanish in the Monday issue of The New Haven Register and one day of the La Voz Hispana**
2. Other required communication includes (per subsection (b)(2)),
 - ☒ posting a sign on the subject property in English and all other languages spoken by at least 15 percent of the population that reside within a one-half mile radius of the subject facility, subject to any local regulations and ordinances.
 - ☒ written notification to all local (alderman, council members etc.) and state elected officials, identified in accordance with Part III. C.1. of this document.
 - ☒ posting on electronic media including, but not limited to, the applicant's website, relevant internet websites and social media platforms, provided such notice is readily found by searching for the name of the affecting facility on the Internet (subsections (b)(2) and (b)(4)).
3. Additional communication methods **may** include the following:
 - ☒ written notification to neighborhood and environmental groups—identified in accordance with Part III. C.2. of this document—in English and other languages appropriate for the target audience;
 - ☒ Other communication methods. Please specify:
 - A. **Send public service announcements to area radio stations:**
 - **WNPR (Public Radio)**
 - **WSHU (Public Radio)**
 - **WNHA-LP (Spanish)**
 - **WELI (Talk/News)**
 - B. **Send an announcement to area church newsletters, bulletins and websites. (See Figure 1, Location of Churches)**
 - a. **Iglesia Pentecostal – 27 Laurel St., New Haven**
 - b. **St. Andrews United Methodist Church – 1230 Townsend Ave., New Haven**
 - c. **Walk for Faith Church – 104 Fairmont Ave., New Haven,**

Part III: Measures to Facilitate Meaningful Public Participation

At a minimum, each of the following measures must be completed and submitted with this Plan. Please label all supporting documents to correspond with the outline provided in this document, e.g., "Part III A: Identification of Proposed Facility or Proposed Expansion of a Facility".

A. Identification of Proposed Facility or Proposed Expansion of a Facility

1. Identify the potential environmental and health impacts of such facility or the expansion of such facility, i.e., increased air emissions, water discharges, material management issues, etc.

Global Companies LLC (Global) operates a bulk petroleum distribution terminal at 500 Waterfront Street in New Haven, Connecticut (Global New Haven Terminal), where petroleum products, including gasoline, are stored and distributed. The facility is owned by Global New Haven Terminals LLC (the applicant) and operated by Global Companies LLC; both entities are wholly owned subsidiaries of Global Partners LP. Global New Haven Terminals LLC is seeking a New Source Review (NSR) permit from the Connecticut Department of Energy and Environmental Protection (DEEP) to allow Tank 123—currently permitted for distillate service—to be used for gasoline storage. (See Attachment A, Project Description)

As with all fuel storage and distribution operations, the proposed change in tank service involves certain environmental considerations. These include potential impacts related to air emissions, stormwater management, and material handling. The sections that follow describe each of these areas in more detail, along with the existing systems and procedures in place to ensure continued compliance with applicable regulatory requirements and protection of the surrounding environment.

Air Emissions and Mitigation:

The transition of Tank 123 to gasoline service is projected to increase volatile organic compound (VOC) emissions. To minimize these emissions, the tank was constructed with an internal floating roof and seal system designed to limit vapor losses during normal operation. In addition, when the tank is emptied and degassed for maintenance, Global will utilize a portable vapor control device to further reduce emissions. These measures are consistent with best management practices and regulatory requirements for air quality protection.

Material Handling and Spill Prevention:

The storage and transfer of gasoline and distillates require stringent safeguards to minimize environmental risk. The terminal is equipped with containment systems designed to manage potential releases and prevent impacts to soil or water resources. Storage tanks and associated equipment are subject to regular inspection and maintenance to ensure continued integrity. In addition, the facility maintains a Spill Prevention, Control, and Countermeasure (SPCC) Plan and a Facility Response Plan that are reviewed by state and federal agencies, ensuring readiness to respond effectively to any potential incidents. The proposed project does not alter existing material handling procedures or increase the risk of release.

Water Discharges and Stormwater Management:

Global recognizes the importance of responsible stormwater management in protecting surrounding water resources. The terminal operates within designated containment areas designed to prevent uncontrolled runoff. Stormwater systems are constructed and maintained in accordance with all applicable CT DEEP regulations, and discharges are permitted and routinely monitored under the state's stormwater discharge program. The proposed project will not result in any changes to existing stormwater discharge volumes or conditions.

Traffic, Noise, and Operational Controls:

Global recognizes that traffic and noise are common concerns in communities surrounding industrial operations. However, the proposed project is not anticipated to result in any increase in traffic volume or noise levels beyond current conditions. Existing truck access and marine vessel operations will continue as currently permitted, and no changes to operational schedules or intensity are proposed as part of this project.

2. Identify permits and general permits needed for the project by completing the [Permit Checklist](#) (DEEP-APP-001A). *It is important to complete the Checklist thoroughly to identify to the public what types of Department permits may be needed for such a facility.*

Global Companies LLC has obtained the following State permits for the Global New Haven Terminal:

- **Title V Operating Permit:** Permit No. 117-0257-TV, authorizing the facility's air emissions under the Clean Air Act.
- **General Permit for the Discharge of Stormwater Associated with Industrial Activity:** Permit No. GSI003072, regulating stormwater discharges from industrial operations.
- **General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities:** Permit No. DEEP-WPED-GP-015, covering stormwater and dewatering discharges during construction activities.
- **General Permit for the Discharge of Groundwater Remediation Wastewater:** Permit No. DEEP-WPED-GP-027, authorizing discharges related to groundwater remediation efforts.
- **Marine Terminal License:** License No. MT031, permitting marine terminal operations at the facility.

In addition to these existing permits, Global is seeking a State New Source Review (NSR) Permit for Tank 123 to authorize gasoline storage, as required by the Connecticut Department of Energy and Environmental Protection (DEEP).

These permits and licenses ensure that the terminal operates in compliance with applicable environmental regulations and standards.

See Attachment B for a copy of the DEEP-APP-001A checklist.

3. Identify efforts to mitigate the potential environmental and health impacts of such facility.

The Global New Haven Terminal, operated by Global Companies LLC, is committed to mitigating potential environmental and health impacts associated with its operations, including the proposed facility upgrades and the re-permitting of Tank 123 for gasoline storage. The terminal adheres to stringent federal and state regulations and has implemented comprehensive plans to ensure safe and environmentally responsible operations.

Regulatory Compliance and Preparedness:

As a licensed marine terminal, the facility operates under the oversight from DEEP, the U.S. Environmental Protection Agency (EPA), and the U.S. Coast Guard. In compliance with these agencies, the terminal has developed and maintains several critical plans:

- **Spill Prevention, Control, and Countermeasure (SPCC) Plan:** This plan outlines procedures to prevent oil discharges into navigable waters, including spill prevention strategies, control measures, and emergency response protocols. The SPCC Plan is regularly reviewed and updated to reflect any facility modifications, such as the re-permitting of Tank 123.
- **Facility Response Plan (FRP):** Designed to address worst-case discharge scenarios, the FRP details response actions, resource allocations, and coordination with local and federal agencies to effectively manage significant spill events. The plan is submitted to the USCG and EPA for review and approval.
- **Facility Security Plan (FSP):** To safeguard against unauthorized access and potential security threats, the terminal maintains a comprehensive security plan that includes

access controls, surveillance measures, and personnel training. The FSP is approved by the USCG.

These plans collectively serve to mitigate potential environmental impacts by establishing robust prevention, preparedness, and response frameworks.

Stormwater Management:

The Global New Haven Terminal is registered under the Connecticut Department of Energy and Environmental Protection's (CT DEEP) General Permit for the Discharge of Stormwater Associated with Industrial Activity. In accordance with this permit, the facility has developed and implemented a Stormwater Pollution Prevention Plan (SWPPP) that encompasses:

- **Pollution Control Measures:** Implementation of best management practices to minimize the exposure of pollutants to stormwater, thereby reducing the potential for contaminated runoff.
- **Monitoring and Sampling:** Regular monitoring of stormwater outfalls to assess the effectiveness of pollution prevention measures and ensure compliance with water quality standards.
- **Employee Training:** Comprehensive training programs for onsite personnel to enhance awareness and proficiency in pollution prevention practices and spill response.

The proposed re-permitting of Tank 123 for gasoline storage does not involve any physical modifications to the facility's stormwater infrastructure. As such, no changes to the existing stormwater control systems are anticipated, and the current SWPPP remains applicable and effective in managing stormwater discharges in compliance with regulatory requirements.

4. Identify any pollution control measures associated with the project.

The proposed re-permitting of Tank 123 for gasoline storage at the Global New Haven Terminal incorporates several pollution control measures to mitigate potential environmental impacts:

Air Emissions Control:

- Tank 123 is equipped with an internal floating roof system designed to minimize volatile organic compound (VOC) emissions during standard operations. Additionally, when the tank requires emptying and degassing for maintenance or inspection, Global Companies LLC will employ vapor control technologies to manage and reduce emissions during these procedures.

Spill Prevention and Containment:

- **Spill Prevention, Control, and Countermeasure (SPCC) Plan:** This plan outlines procedures to prevent and manage oil discharges, including regular inspections and maintenance of storage tanks to ensure structural integrity.
- **Secondary Containment Systems:** The terminal is nearing completion of a tank farm secondary containment system upgrade that both increases the volume of containment and includes the installation of a geosynthetic liner to contain any spills in the unlikely event they were to occur, preventing soil and water contamination.

Stormwater Management:

- **Stormwater Pollution Prevention Plan (SWPPP):** In compliance with the General Permit for the Discharge of Stormwater Associated with Industrial Activity, the facility implements measures to control and treat stormwater runoff, minimizing the risk of waterway contamination.

Operational Controls:

- **Regular Maintenance and Monitoring:** Routine inspections and maintenance of equipment are conducted to detect and address potential issues promptly, ensuring ongoing compliance with environmental standards.

By integrating these pollution control measures, the Global New Haven Terminal aims to operate responsibly, safeguarding both environmental quality and public health.

5. Describe the location of the proposed facility with respect to residents and other community members (e.g., schools, parks, where people live, work etc.), including vehicle traffic patterns, noise, hours of operation and proximity to sensitive receptors, which could cause concerns in the community.

The Global New Haven Terminal, located at 500 Waterfront Street, New Haven, CT (See Attachment C, Figures 1 through 4), is located within the city's industrial port district. The terminal is located next to similar facilities engaged in fuel storage and bulk material handling to the north and south, Waterfront Street to the east, and New Haven Harbor to the west. This location provides direct access to major transportation routes, including Interstates 91 and 95, facilitating the efficient distribution of petroleum products throughout the region.

The surrounding area is predominantly industrial, with similar facilities engaged in fuel storage and bulk material handling. This industrial zone is distinct from residential neighborhoods, which are situated at a considerable distance from the terminal, thereby minimizing potential impacts. Approximately 0.25 miles southeast of the terminal, residential areas are present along Fulton Street and Chamberlain Street. Further east, about 0.5 miles away, a residential neighborhood also includes several churches, local markets, and restaurants, primarily along the Farren Avenue and Fulton Street corridors (See Figure 4, Sensitive Receptors).

Vehicle traffic to and from the terminal primarily utilizes Waterfront Street, which connects directly to Interstate 95 via nearby access points. This routing minimizes the impact on local residential streets, reducing potential concerns related to traffic congestion and noise within adjacent communities.

The terminal operates 24 hours per day and 365 days per year, and noise levels are consistent with typical industrial activities. Given its location within a designated industrial zone and the implementation of effective traffic management strategies, the facility maintains a respectful distance from sensitive receptors, thereby minimizing potential noise disruptions.

B. Identification of Impacted Community

1. Identify potentially impacted community (e.g., local neighborhood and religious institutions, schools and sensitive receptors such as day care centers and clinics and hospitals, local businesses, community-based organizations and environmental organizations).

The Global New Haven Terminal, located at 500 Waterfront Street, New Haven, CT, is situated within the city's industrial port district, surrounded by similar industrial facilities. While the terminal is in an industrial zone, residential neighborhoods such as the Annex and Fair Haven are located within a one-mile radius, with the closest residences approximately 0.25 miles away. The facility's operations are designed to minimize potential impacts on these nearby communities.

Within these areas are the following institutions:

- **Religious Institutions:**

Annex Neighborhood:

- o **Iglesia De Dios Nueva Esperanza: 86 Farren Ave, New Haven, CT 06513**

- o Sweet Hope Plain FWB Church: New Haven, CT 06513
 - o St. Andrews United Methodist Church: 1230 Townsend Ave, New Haven, CT 06513
 - o Walk of Faith Church: 104 Fairmont Ave, New Haven, CT 06513
- Fairhaven Neighborhood:**
 - o Church on the Rock New Haven: 95 Hamilton St, New Haven, CT 06511
 - o Center Church on the Green: 250 Temple St, New Haven, CT 06511
 - o Elm City Vineyard Church: 425 College St, New Haven, CT 06511
- **Educational Institutions:**
 - o Benjamin Jepson Magnet School, 15 Lexington Ave, New Haven, CT 06513
 - o John S. Martinez School: 100 James St. New Haven, CT 06513
- **Day Care Centers:**
 - o St. Andrew's Child Care Center: 1230 Townsend Ave, New Haven, CT 06513
 - o New Haven KinderCare: 555 Long Wharf Dr, New Haven CT 06511
 - o First Step Child Care & Learning Center: 95 Hamilton Street, New Haven, CT 06511
- **Clinics and Hospitals:**
 - o Fair Haven Community Health Center: 374 Grand Ave, New Haven, CT 06513
- **Parks:**
 - o Long Warf Park: Long Warf Drive, New Haven, CT 06511
- **Community based organizations and environmental organizations:**
 - o Christian Community Action: 168 Davenport Avenue,
 - o Save the Sound: 127 Church Street, New Haven, CT 06510
- **Local Businesses:**

To the south and east of the site there are several fuel and bulk storage facilities

 - o Gateway Terminals
 - o American Green Fuels
 - o New Haven Terminals
 - o Port of New Haven
 - o Lafarge North America
 - o Harbor Terminal
 - o Magellan Midstream Partners LP
 - o Buckeye Terminals

Other businesses in the general area:

 - o United Rentals (rental equipment)
 - o Dunkin Donuts (fast service restaurant)
 - o Grapes and Grains (beverage store)
 - o Tacos Santa Fe (restaurant)
 - o Fountain's Garage (auto repair)
 - o Wilson Maturo Motors (auto dealership)
 - o Onofrio's (vegetable preparation and sales)
 - o Bell Simons Companies (plumbing, refrigeration, HVAC)
 - o Solano Tire & Wheel (Tire Repair Shop)
- 2. Identify the community's demographics, including age, income, language, population, race/ethnicity, and economic status.

Community Demographics:

Census Tract 1427, New Haven CT (Data American Community Survey 2021 5-year)
1.2 square miles
5895 people per square mile

Age and Sex

Median age: 27.3

Female: 55.3% Male 44.7%

Race & Ethnicity:

Hispanic: 56.4%
White: 20.8%
Black: 16.9%
Native: 0%
Asian: 4.1%
Islander: 0%
Two: 4.9%

Income

Per capita income: \$ 18,997
Median household income: \$39,496

Poverty

30.1% of total people are below the poverty line
42.5% of children are below poverty line
14.1% of seniors are below the poverty line

Transportation to work

22.1 minutes mean travel time to work
71.5% drove alone
10.2% carpooled
11.4% public transit
3% worked at home
1.6% walked
2.2% other transportation means

Households

2,480 households
2.85 persons per household
18.5% married households
55.2% female householder
18.5% male householder
7.8% non-family

Marital status

59.5% single
40.5% married

Fertility

0% of women 15-50 who gave birth during past year

Units & Occupancy

2816 housing units
88.1% occupancy
11.9% vacant
68.5% renter occupied
31.5% owner occupied

Value

\$161,600: Median value of owner-occupied units
\$1,367.32: average monthly housing cost

Educational attainment

17.2% no degree
44.8% high school
12.8% some college
16% bachelor's
9.2% post-grad

Language

Language at home, all people 5 years and older:
50.7% English only
49.3% Language other than English. Of those:
 Spanish: 43.7%
 Other Indo-European Language: 3.5%
 Asian: 2.1%

Place of Birth

17.2% foreign-born population. Of those:
 72% Latin America
 25.8% Asia
 1.4% North America
 0.8% Europe

Veteran status

0.5% of the population has veteran status

Efforts should be made to identify and discuss social and economic conditions as well as the cultural basis for some of the community's concerns and needs.

The Global New Haven Terminal is situated within a predominantly industrial zone and currently stores gasoline in other on-site tanks. The facility upgrades and re-permitting of Tank 123 are not anticipated to impact overall operations. However, residential neighborhoods, such as The Annex, are located within approximately 0.5 miles of the facility. The Annex is a diverse community, with approximately 46% of residents identifying as Hispanic or Latino and 16% as African American.

Global recognizes the importance of engaging with local leaders and community groups to understand and address community concerns. To this end, we have initiated and will continue to maintain open lines of communication with stakeholders in the New Haven area.

Recent meetings with community representatives have provided valuable insights:

- **Alder Sal Punzo:** Expressed interest in the terminal's upkeep, including painting tanks and general maintenance. He also highlighted opportunities for community outreach, such as supporting local youth programs like the Little League in The Annex. Alder Punzo offered to introduce Global to the Port Authority, facilitating further collaboration.
- **Environmental Advisory Council Members (Laura Cahn & Kathy Fay):** Provided recommendations for public notice dissemination and suggested connecting with additional city officials for broader outreach. They emphasized the importance of keeping the community informed about environmental matters.
- **Michael Piscitelli, Office of Economic Development:** Appreciated proactive communication and expressed interest in receiving emissions data when available. He discussed broader port-related issues, including human trafficking awareness and land use considerations, encouraging Global to be attentive to these matters.

In response to these engagements, Global is committed to:

- **Maintaining the facility's appearance through regular upkeep and maintenance.**
- **Providing informational materials and staff proficient in Spanish to effectively communicate with the local community.**
- **Participating in community events and supporting local initiatives to foster positive relationships.**
- **Collaborating with the Port Authority and other stakeholders to address broader community concerns.**

Furthermore, Global maintains regular contact with emergency personnel and conducts drills to ensure preparedness for potential incidents. These efforts are part of our ongoing commitment to environmental stewardship and community engagement, ensuring transparency throughout the permitting process.

Given that a significant portion of New Haven residents speak Spanish as their primary language, community engagement efforts will prioritize providing materials and project staff proficient in Spanish to facilitate clear communication. This approach ensures that information is accessible and comprehensible to the majority of non-English-speaking residents, fostering inclusive and effective community participation

3. Identify community(s) planned and existing types of development.

Maps may be used to provide information on related environmental considerations. Keep in mind that communities may define themselves in non-geographic ways using cultural and social terms (e.g., retirement center, parks, places of worship, social clubs, etc.). In any given area there may also be multiple overlapping communities and interests.

The project site is adjacent to the following environments, communities, and uses:

- The west side of the facility is adjacent to the Quinnipiac River and the New Haven Harbor, with the Long Wharf area across the river.
- To the north, there are bulk petroleum storage facilities, Interstate 95, and Highway 1 and additional storage facilities.
- To the east, the area includes other industrial sites and commercial buildings, as well as residential neighborhoods along Fulton Terrace and Kendall Street. The Annex neighborhood, which encompasses these areas, is located within approximately 0.5 miles of the facility.
- To the south, there are other bulk storage facilities, the Port of Connecticut, and industrial sites.

Please see Figures 1 and 2 for the project location and a one-half-mile and one-mile radius map.

Several development projects are planned or underway within a half-mile radius of the Global New Haven Terminal, including:

Long Wharf Responsible Growth Plan:

Overview: This plan envisions transforming the Long Wharf area into five walkable neighborhoods, each centered around existing uses. The development aims to create mixed-use spaces with improved transit connections and resilient infrastructure.

Proximity: The Long Wharf district is across the river from 500 Waterfront Street, making this project within a half-mile radius.

Details: The plan includes a green infrastructure park and complete streets to enhance public spaces and connectivity.

Fusco Corporation's Residential Development:

Overview: The Fusco Corporation received approval to build up to 500 new apartments on Long Wharf Drive. The development includes two residential towers, a landscaped public park, and a public market. As of April 2025, the Fusco Corporation's proposed residential development at 501–585 Long Wharf Drive in New Haven has not yet commenced construction.

Proximity: The site at 501–585 Long Wharf Drive are across the river but within a half-mile of 500 Waterfront Street.

Details: The project aims to revitalize the waterfront area, offering residential and recreational spaces.

While both projects are located within a half-mile radius of the terminal, it is important to recognize that Tank 123's re-permitting has been carefully evaluated to ensure that it does not adversely impact these planned developments or the existing surrounding communities.

At a minimum, each of the following measures must be completed and submitted with this Plan. Please label all supporting documents to correspond with the outline provided in this document,

C. Identification of Individuals/Groups to Seek and Notify

1. Notify town(s) officials in which the affecting facility is proposed to be located or expanded. At a minimum, identify the following:

- Chief elected official of the applicable municipality:
 - o **Mayor Justin Elicker**
- City Council and/or Board of Alderman members:
 - o **Sal Punzo – Ward 17 (The Annex Neighborhood)**
 - o **Sarah Miller – Ward 14**
 - o **Franklin R. Redente Jr – Ward 15**
 - o **Jose Crespo – Ward 16**
 - o **Salvatore E. DeCola – Ward 18**
- State representative of the applicable municipality:
 - o **Alphonse Paolillo – State Representative, District 97**
- State senator of the applicable municipality:
 - o **Martin Looney – 11th Senate**

Check other individuals/groups to notify.

- ☒ local building official:
 - o **Robert Dillion – Building Official**
- ☒ the zoning enforcement officials.
 - o **Position is Vacant**
- ☒ local health officials; and
 - o **Maritza Bond – Director of Health**
- ☒ any local environmental commission, committee, or officials.
 - o **New Haven Environmental Advisory Council, Chairwoman Laura Brown – 165 Church Street, New Haven, CT**
 - o **New Haven Environmental Justice Network – Chris Schweitzer**

For a complete contact list see Attachment D – New Haven EJ PPP Contact List

For information on municipal officials, please refer to the latest edition of the “State of Connecticut Register and Manual” (<https://portal.ct.gov/SOTS/Register-Manual/Register-Manual/Connecticut-State-Register--Manual>), or contact municipal offices.

2. Identify the following to notify abutting property owners, neighborhood residents, community leaders, (neighborhood and religious leaders, block watch captains, etc.), key community members; environmental commissions; civic organizations (e.g. Chamber of Commerce); local businesses; environmental justice leaders and organizations; and neighborhood groups.
 - **Abutting property owners (see Attachment E)**
 - **Neighborhood residents within one-half mile of the project site.**
 - **Local businesses within one-half mile of the project site**

- **Other organizations:**
 - Economic Development Corporation of New Haven
 - Greater New Haven Clean Cites Coalition
 - Greater New Haven Community Foundation
 - Agency on Aging of South-Central Connecticut
 - Capital for Change
 - Christian Community Actions
 - Habitat for Humanity of Greater New Haven
 - Junta for Progressive Action, Inc.
 - Boys & Girls Club of New Haven
 - Spanish American Merchants Association (SAMA)
 - New Haven YMCA Youth Center
 - Connecticut Fund for the Environment/Save The Sound
 - New Haven Urban Design League
 - The Nature Conservancy – Connecticut Chapter
 - Albertus Magnus College
 - Gateway Community College
 - Southern Connecticut State University
 - Yale University
 - Ives Main Library
 - Fair Haven Branch Library
 - Mitchell Branch Library
 - Stetson Branch Library
 - Wilson Branch Library
 - Judicial Law Library
 - Downtown/Wooster Square Management Team, District 1
 - Westville-West Hills, District 2
 - Hill South Management Team, District 3
 - Dwight/Chapel Management Team, District 4
 - Hill North Management Team, District 5
 - Dixwell Management Team, District 6
 - Newhallville Management Team, District 7
 - East Rock/Prospect Hill Management Team, District 7
 - Fair Haven Management Team, District 8
 - Quinnipiac East Community Management Team, District 9
 - East Shore/Annex Community Management Team, District 9
 - Beaver Hill Management Team, District 10
 - Regional Workforce Development Board of New Haven
 - Unidad Latina en Accion

3. Other (please specify):

D. Proposed Outreach Efforts

Identify proposed outreach efforts which will be implemented, in addition to the required informal public meeting required covered by Part II of this document.

Check proposed outreach efforts as applicable:

- ☒ media outreach (e.g., sign, newspapers, radio, including Spanish language media). Include a copy of the planned publication or broadcast. For a list of alternative media, contact the *Office of Equity and Environmental Justice* at 860-424-3044 or edith.pestana@ct.gov.
- ☐ open house; facility tours
- ☒ meetings with neighborhood and community leaders, residents, business, etc.
- ☒ Other (please specify):

- **Multilingual Outreach Materials: Develop and distribute informational materials in both Spanish and English to accommodate the primary languages spoken by residents and stakeholders.**

- **Multilingual On-Site Signage:** Install informational signs in multiple languages near the project site to ensure accessibility for all community members.
- **Community Posting:** Place outreach notices in local community buildings and facilities to maximize visibility and engagement.
- **Direct Mailings:** Send informational mail directly to property owners, business owners, elected officials, and identified community and neighborhood leaders and organizations.
- **Dedicated Project Website:** Establish a user-friendly website that provides comprehensive project information and offers a platform for community members to submit comments and feedback.

E. Identify Other Measures, if applicable:

- **Social Media Engagement:** Utilize platforms such as Facebook, Twitter, and Instagram to share updates and event announcements and facilitate two-way communication with the community.
- **Partnerships with Local Organizations:** Collaborate with community-based organizations, faith-based groups, and cultural associations to disseminate information and gather input effectively.

Part IV: Certification

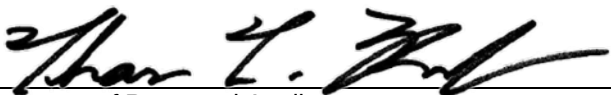
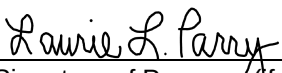
The proposed applicant *and* the individual(s) responsible for actually preparing the Plan must sign the following Certification. Refer to the [Environmental Justice Guidance Document](#) for information on who should sign the certification. An application will be considered incomplete unless all required signatures are provided. If the applicant is the preparer, please mark "applicant" in the spaces provided for the preparer.

"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief.

I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

I certify that this form is complete and accurate, as prescribed by the commissioner and without alteration of the text.

I also certify that a final report, which documents the implementation of this Plan, will be submitted to the Department **after** this Plan has been **Tentatively Approved** in writing by the Department, 30 days after the informal public meeting is held and **before** the Department issues a Notice of Tentative Determination."

		4/28/2025
Signature of Proposed Applicant		Date
Tom Keefe, Global New Haven Terminals LLC		VP Environmental Health & Safety
Name of Proposed Applicant (print or type)		Title (if applicable)
		4/28/2025
Signature of Preparer (if different than above)		Date
Laurie L. Parry		Senior Advisor, Stewardship Solutions, Inc.
Name of Preparer (print or type)		Title (if applicable)

Note: Please submit a hard copy of this completed Plan with all supporting documents to:

ATTN: EDITH PESTANA
OFFICE OF EQUITY AND ENVIRONMENTAL JUSTICE
OFFICE OF THE COMMISSIONER
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
79 ELM STREET
HARTFORD, CT 06106-5127

Please also send an electronic copy by email to: Edith.pestana@ct.gov

Refer to the [Environmental Justice Guidance Document](#) and cover sheet for completing the final report which must be submitted **after** this Plan has been approved in writing by the Department and **before** the Department issues a Notice of Tentative Determination.

Global New Haven Terminals LLC respectfully invites community members to attend an Informational Meeting concerning the proposed facility upgrades and re-permitting of Tank 123 at our facility located at 500 Waterfront Street, New Haven, Connecticut. This meeting aims to foster transparent communication, address any environmental justice concerns, and actively solicit input from residents and stakeholders to ensure that the project aligns with community interests and regulatory requirements.

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT

GLOBAL NEW HAVEN TERMINALS LLC

OPEN TO THE GENERAL PUBLIC

AN INFORMATIONAL MEETING REGARDING:

Proposed facility upgrades and re-permitting of Tank 123 at the Global New Haven Terminal, an existing bulk storage terminal at 500 Waterfront Street, New Haven, CT

MEETING DETAILS

<u>SESSION 1 (ENGLISH LANGUAGE)</u>	<u>SESSION 2 (SPANISH LANGUAGE)</u>
WHEN: JUNE 23, 2025	WHEN: JUNE 24, 2025
WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT	WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT
VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Need help? Join the meeting now Meeting ID: 254 547 880 23 Passcode: eP32Ja7Z	VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Need help? Join the meeting now Meeting ID: 295 491 172 497 Passcode: Lm9Vj93Y

PRIOR TO THE MEETING, INTERESTED PARTIES MAY RSVP ON WEEKDAYS, WITH RESPECT TO ATTENDANCE, TO:

- o Laurie at (541) 519-4891 or laurie.parry@globalp.com
- o On the website at: <https://www.globalp.com/terminals/new-haven/>.

THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE:

1. Welcome and Introduction
2. Existing facility purpose, layout, and operations
3. Proposed facility purpose, layout, and operations
4. Safety Features Associated with Facility Operation
5. Questions and Answers

Attachment A

Project Description

Project Description: New Source Review for Tank 123 and Terminal Upgrades

Project Overview

The proposed project involves obtaining a New Source Review (NSR) permit for Tank 123, an existing bulk liquid energy storage tank at Global Partners LP's New Haven Terminal, located at 500 Waterfront Street, New Haven, CT. The tank was initially constructed and permitted for distillate service but will be transitioned to gasoline service upon the issuance of the NSR permit. The Connecticut Department of Energy and Environmental Protection (DEEP) has determined that an NSR permit is required to ensure compliance with air quality regulations.

Additionally, the project includes modernizing the terminal's distribution rack infrastructure to improve operational efficiency. These modifications will enable the terminal to enhance its gasoline-loading capabilities while maintaining strict environmental compliance.

Current Facility Conditions

The New Haven Terminal is a bulk liquid energy storage and distribution facility situated within an IH (Heavy Industry) zoned district, which permits industrial operations such as bulk liquid energy terminals. The site encompasses:

- 10 above-ground storage tanks, including Tank 123, with a combined shell storage capacity of 29.3 million gallons. See Table 1 below.

Table 1 – Tank Product and Capacity

Tank	Product	Dimensions	Shell Capacity (gallons)	Shell Capacity (bbl)
101	GASOLINE	39'6" X 120	3,341,574	79,561
104*	ULSD/ULSH	29'7" X 60	625,664	14,897
105	ULSD/ULSH	47'6" X 60	1,004,587	23,919
110*	ETHANOL	40 X 60	845,968	20,142
111	GASOLINE	39'5" X 120	3,334,527	79,394
112	GASOLINE	48'3" X 120	4,081,796	97,186

113	GASOLINE	47'4" X 120	4,004,249	95,339
114	GASOLINE	47'4" X 120	4,004,249	95,339
115*	ETHANOL	48 X 80	1,804,732	42,970
123	ULSD/ULSH	56 X 140	6,318,820	150,448

* Tanks are also permitted for gasoline storage

- A multi-modal transportation network, enabling the shipment and receipt of liquid energy products (gasoline and diesel) via truck, pipeline, and marine vessel.
- Two distribution racks with eight bays, facilitating the transfer of fuel products to trucks.
- 11 active loading arms, with two currently non-functional and slated for replacement or upgrades as part of terminal modernization.

An existing vapor recovery unit (VRU) that effectively manages emissions during loading operations, ensuring compliance with air quality standards.

Proposed Facility Modifications

The NSR permit will allow for the re-permitting of Tank 123 for gasoline storage, ensuring the facility meets updated regulatory requirements. Beyond the re-permitting process, modernization of the terminal's distribution infrastructure will include:

1. Bay 6 Upgrades:
 - Replacement of an out-of-service loading arm with a new gasoline-loading arm, improving loading capabilities.
2. Bay 8 Upgrades:
 - Installation of a new gasoline-loading arm on an existing connection to enhance throughput capacity.
 - Addition of a new connection and an additional gasoline-loading arm, further increasing efficiency and operational flexibility.

Project Timeline

- Tank 123 Re-permitting: The NSR permitting process is currently underway.
- Distribution Rack Modifications: Expected to be completed within 18-24 months after approval.

Environmental and Community Considerations

The NSR Permit does not introduce significant changes to overall facility operations or emissions beyond those previously permitted.

- No ground disturbance is anticipated as part of this project.
- The facility will continue to operate within all applicable air quality, environmental, and safety regulations, ensuring no adverse impact on the surrounding community.
- Global Partners LP remains committed to environmental stewardship and community engagement, ensuring transparency throughout the permitting process.

Community Engagement Initiatives

Recognizing the diverse linguistic demographics of the surrounding communities, particularly the significant Spanish-speaking population, Global Partners LP is committed to providing multilingual materials and project staff proficient in Spanish to facilitate clear communication during community engagement efforts. This includes hosting informational meetings, distributing bilingual materials, and establishing partnerships with local organizations to ensure transparent communication and address community concerns effectively.

This project supports improved operational efficiency, modernized infrastructure, and continued compliance with regulatory standards, reinforcing the New Haven Terminal's role as a key energy distribution hub.

Attachment B

DEEP -APP-001A Checklist



Connecticut **Department of Energy & Environmental Protection**

Permit Checklist

In Parts I and II, check applicable DEEP permits required for the subject project. Print legibly or type.

Applicant Name:	Global Companies LLC
Location (City/Town):	New Haven, CT
Brief Description of Project:	New Source Review for and existing tank

Part I: Individual Permit Application and Fee Information

New, Mod. or Renew	Individual Permit Applications	Initial Fees
	AIR EMISSIONS	
New	New Source Review ☐ Revision ☐ minor mod	\$940.00
	Title V Operating Permits ☐ Revision ☐ minor mod ☐ non-minor mod	none
	Title IV	none
	Clean Air Interstate Rule (CAIR)	none
	WATER DISCHARGES	
	To Groundwater	\$1300.00
	To Sanitary Sewer (POTW)	\$1300.00
	To Surface Water (NPDES)	\$1300.00
	WATER PLANNING AND MANAGEMENT	
	Dam Safety	none
	Domestic Sewage Treatment Works (For municipal and private sewage treatment facilities discharging to surface waters)	\$1300.00/ Mod = \$940
	Water Diversion (consumptive) and Registrations	★
	LAND AND WATER RESOURCES	
	Flood Management Certification	none
	Flood Management Certification Exemption	none
	Inland Wetlands and Watercourses	none
	Inland 401 Water Quality Certification	none
	FERC- Hydropower Projects- 401 Water Quality Certification	none
	Water Diversion (non-consumptive)	★
	Certificate of Permission	\$375.00
	Coastal 401 Water Quality Certification	none
	Structures and Dredging/and Fill/Tidal Wetlands	\$660.00
	WASTE MANAGEMENT	
	Aerial Pesticide Application	★
	Aquatic Pesticide Application	\$200.00
	CGS Section 22a-454 Waste Facilities	★
	Disruption of a Solid Waste Disposal Area	\$0
	Hazardous Waste Treatment, Storage and Disposal Facilities	★
	Marine Terminal License	\$100.00
	Stewardship	\$4000.00
	Solid Waste Facilities	★
	Waste Transportation	★

★ See fee schedule on individual application.

Part II: General Permit Registrations and Requests for Other Authorizations Application and Fee Information

✓	General Permits and Other Authorizations	Initial Fees
	AIR EMISSIONS	
☐	Diagnostic and Therapeutic X-Ray Devices (Medical X-Ray) Registration	\$190.00/Xray device
☐	Radioactive Materials and Industrial Device Registration (Ionizing Radiation)	\$200.00
☐	Emergency/Temporary Authorization	★ ★
☐	License Revocation Request	\$0
☐	Other, (please specify):	
	WATER DISCHARGES	
☐	Comprehensive Discharges to Surface Water and Groundwater	
☐	Registration Only	\$625.00
☐	Approval of Registration by DEEP	\$1250.00
☐	Domestic Sewage	\$625.00
☐	Food Service Establishment Wastewater	No registration
☐	Groundwater Remediation Wastewater	
☐	Registration Only	\$625.00
☐	Approval of Registration by DEEP	\$1250.00
☐	Miscellaneous Industrial User	Notification to applicable POTW
☐	Nitrogen Discharges	No registration
☐	Point Source Discharges from Application of Pesticides	\$200.00
☐	Significant Industrial User	
☐	Discharges > 10,000 gpd	\$6250.00
☐	Discharges < 10,000 gpd	\$3125.00
☐	Stormwater Associated with Commercial Activities	\$300.00
☐	Stormwater Associated with Industrial Activities	
☐	<50 employees-see general permit for additional requirements	\$500.00
☐	>50 employees-see general permit for additional requirements	\$1000.00
☐	Stormwater & Dewatering Wastewaters-Construction Activities	★
☐	Stormwater from Small Municipal Separate Storm Sewer Systems (MS4)	\$625.00
☐	Subsurface Sewage Disposal Systems Serving Existing Facilities	★
☐	Swimming Pool Wastewater - Public Pools and Contractors	\$500.00
☐	Emergency/Temporary Authorization - Discharge to POTW	\$1500.00
☐	Emergency/Temporary Authorization - Discharge to Surface Water	\$1500.00
☐	Emergency/Temporary Authorization - Discharge to Groundwater	\$1500.00
☐	Other, (please specify):	

★ See fee schedule on registration/application.

★★ Contact the specific permit program for this information.

Part II: General Permit Registrations and Requests for Other Authorizations (continued)

✓ General Permits and Other Authorizations	Initial Fees
AQUIFER PROTECTION PROGRAM	
☐ Registration for Regulated Activities	\$625.00
☐ Permit Application to Add a Regulated Activity	\$1250.00
☐ Exemption Application from Registration	\$1250.00
Dam Safety Program	
☐ Dam Safety Repair and Alteration: Non Filing	No registration
☐ Dam Safety Repair and Alteration: Filing – No PE	\$100.00
☐ Dam Safety Repair and Alteration: Filing – PE	\$200.00
☐ Dam Safety Repair and Alteration: Approval of Filing	\$250.00
☐ Notice of High Hazard Dam or a Significant Hazard Dam	\$0
Diversion Consumptive	
☐ Diversion of Water for Consumptive Use: Reauthorization Categories	\$2500.00
☐ Diversion of Water for Consumptive Use: Authorization Required	\$2500.00
☐ Diversion of Water for Consumptive Use: Filing Only	\$1500.00
Land and Water Resources	
☐ Programmatic General Permit	★
☐ Water Resource Construction Activities	★
☐ Emergency/Temporary Authorization	★ ★
☐ Other, (please specify):	
Minor Coastal Structures	
☐ 4/40 Docks/Access Stairs	\$700.00
☐ Beach Grading	No reg
☐ Buoys or Markers	No reg
☐ Experimental Activities/Scientific Monitoring Devices	No reg
☐ Harbor Moorings	No reg
☐ Non-harbor Moorings	\$250.00
☐ Osprey Platforms and Perch Poles	No reg
☐ Pump-out Facilities	No reg
☐ Swim Floats	No reg
Coastal Maintenance	
☐ Backflow Prevention Structure	No reg
☐ Beach Grading/Raking	No reg
☐ Catch Basin Cleaning	No reg
☐ Coastal Remedial Activities Required by Order	★
☐ Coastal Restoration	No reg
☐ DEEP Boat Launch Infrastructures	No reg
☐ DOT Infrastructures	No reg
☐ Marina and Mooring Field Reconfiguration	★
☐ Minor Seawall Repair	No reg
☐ Placement of Cultch	No reg
☐ Reconstruction of Legally Existing Structure/Obstruction/Encroachment	★
☐ Removal of Derelict Structures	No reg registration
☐ Residential Flood Hazard Mitigation	★
☐ Temporary Access of Construction Vehicles/Equipment	No reg registration

★ See fee schedule on registration/application.

★★ Contact the specific permit program for this information.

Part II: General Permit Registrations and Requests for Other Authorizations (continued)

✓ General Permits and Other Authorizations	Initial Fees
WASTE MANAGEMENT	
☐ Addition of Grass Clippings at Registered Leaf Composting Facilities	\$500.00
☐ Beneficial Use Determination	★
☐ Collection and Storage of Post Consumer Paint	\$0
☐ Connecticut Solid Waste Demonstration Project	\$1000.00
Construct and Operate a Commercial Facility for the Management of Recyclable Materials and Certain Solid Wastes (Commercial GP)	Initial/Mod Fee
☐ Asbestos Containing Materials	\$1,250.00/\$ 625
☐ Ash Residue	\$1,250.00/\$ 625
☐ Clean Wood: Tier III	\$500.00/\$250
☐ Clean Wood: Tier II	\$250.00/\$125
☐ Construction and Demolition Waste: Tier III	\$1,250.00/\$625
☐ Construction and Demolition Waste: Tier II	\$500.00/\$250
☐ Non-RCRA Hazardous Waste/Compatible Solid Wastes	\$1,250.00/\$625
☐ Recyclables	\$500.00/\$250
☐ Universal Wastes/Compatible Solid Wastes	\$1,250.00/\$625
Contaminated Soil and/or Staging Management (Staging/Transfer)	
☐ New Registrations	\$250.00
☐ New Approval of Registrations	\$1500.00
☐ Renewal of Registrations	\$250.00
☐ Renewal of Approval of Registrations	\$750.00
☐ Disassembling Used Electronics	\$2000.00
☐ Leaf Composting Facility	\$0
☐ Municipal Transfer Station	\$800.00
☐ One Day Collection of Certain Wastes and Household Hazardous Waste	\$1000.00
☐ Sheet Leaf Composting Notification	\$0
Special Waste Authorization	
☐ Landfill or RRF Disposal	\$660.00
☐ Asbestos Disposal	\$300.00
☐ homeowner	\$0
☐ Storage and Processing of Asphalt Roofing Shingle Waste	\$2500.00
☐ Storage and Processing of Scrap Tires for Beneficial Use	\$1250.00
☐ Emergency/Temporary Authorization	★ ★
☐ Other, (please specify):	
REMEDIATION	
☐ In Situ Groundwater Remediation: Enhance Aerobic Biodegradation	★
☐ In Situ Groundwater Remediation: Chemical Oxidation	\$500.00
☐ Emergency/Temporary Authorization	★

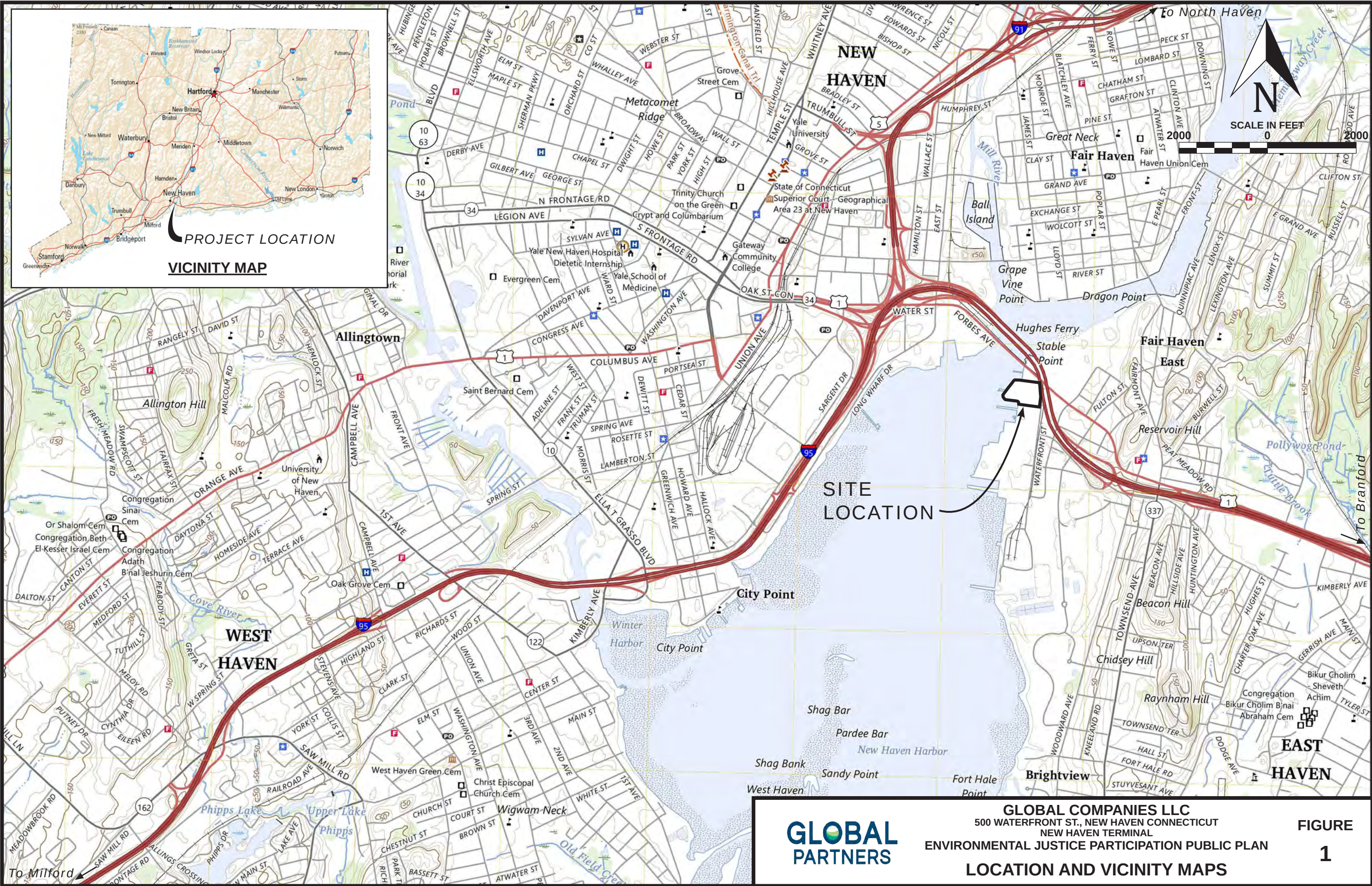
★ See fee schedule on registration/application.

★★ Contact the specific permit program for this information.

Permit Program Contact Numbers			
Air	860-424-4152	Solid Waste Management	860-424-3366
Water Discharges	860-424-3025	Pollution Prevention Office	860-424-3297
Land and Water Resources	860-424-3034	Office of Equity and Environmental Justice	860-424-3044
Hazardous Waste Management	860-424-3023	Permit Assistance	860-424-3003

Attachment C

Figures





100 0 100
SCALE IN FEET

PROJECT
LOCATION

New Haven Harbor

INTERSTATE 95

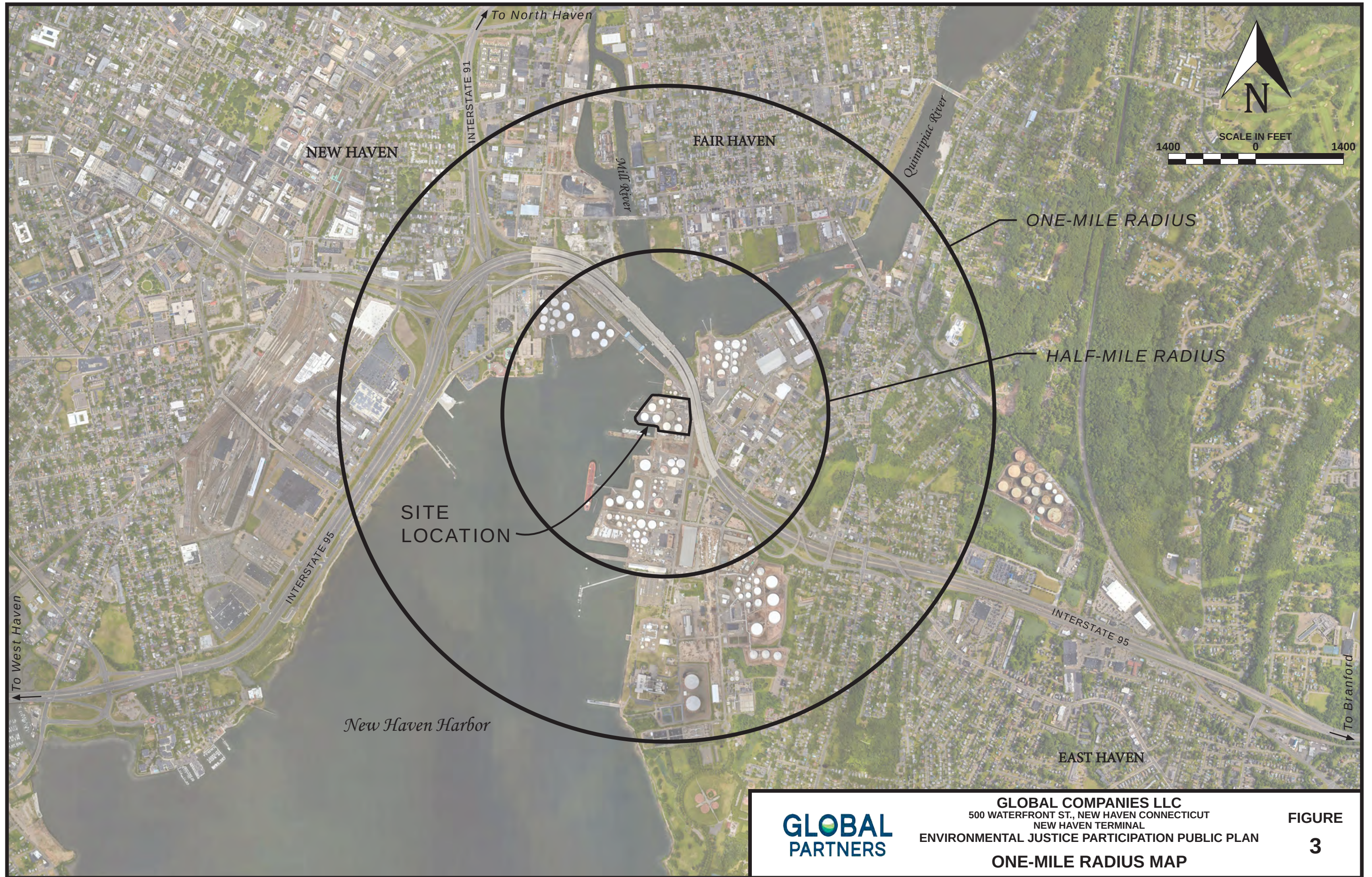
WATERFRONT ST

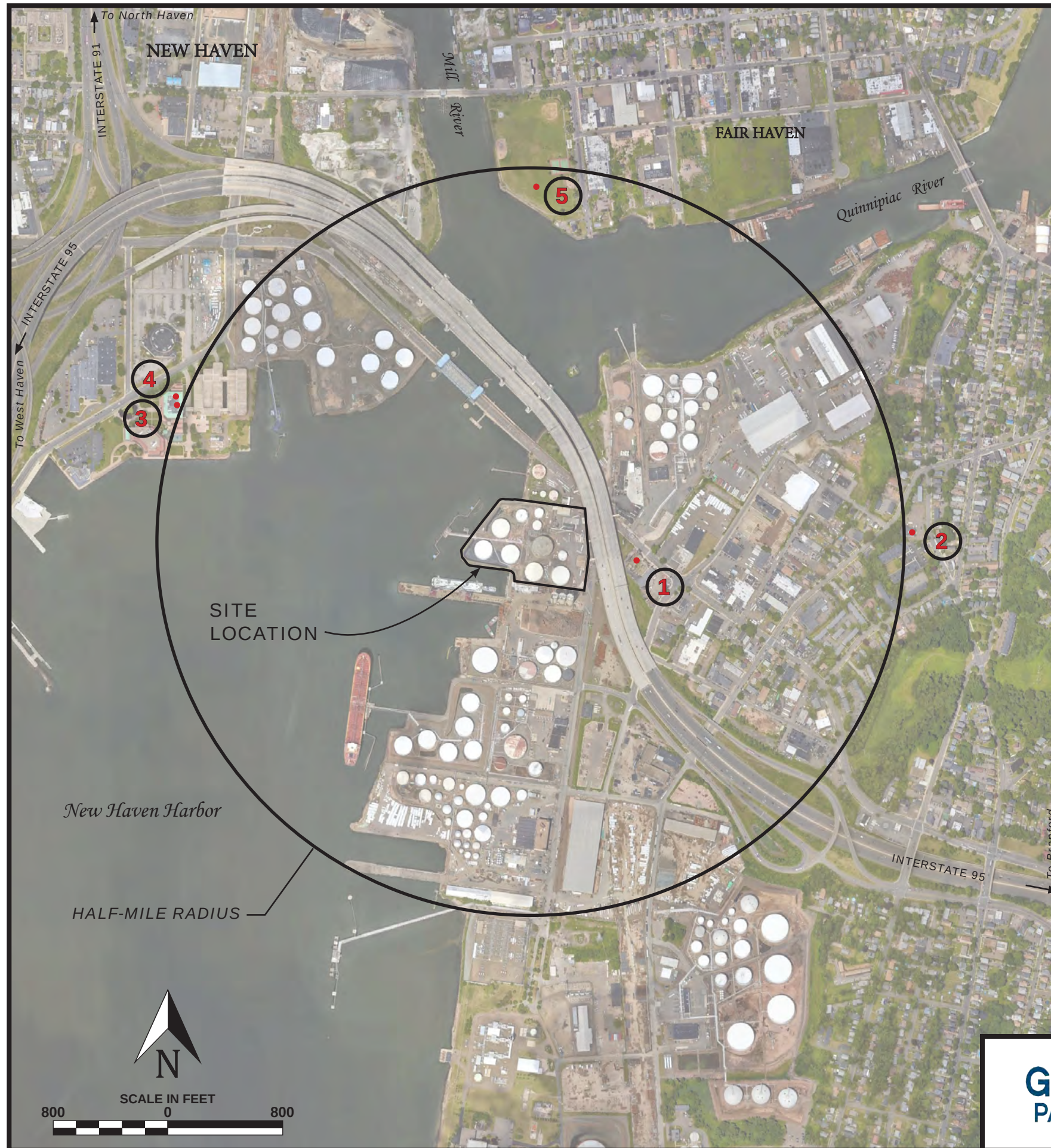
To East Haven

**GLOBAL
PARTNERS**

GLOBAL COMPANIES LLC
500 WATERFRONT ST., NEW HAVEN CONNECTICUT
NEW HAVEN TERMINAL
ENVIRONMENTAL JUSTICE PARTICIPATION PUBLIC PLAN
AERIAL PHOTOGRAPH

**FIGURE
2**





CHURCHES

- ① Iglesia De Dios La Nueva Jersusalen
153 Forbes Ave., New Haven, CT 06512
- ② Walk of Faith Church
104 Fairmont Ave., New Haven, CT 06513

DAY CARE

- ③ New Haven KinderCare
555 Long Wharf Dr., New Haven, CT 06511
- ④ Archdiocese of New Orleans
555 Long Wharf Dr., New Haven, CT 06511

PARKS

- ⑤ Criscuolo Park
Chapel St., New Haven, CT 06513

NOTE:

No schools or hospitals within the half-mile radius

Attachment D

New Haven EJ PPP Contact List

**Global Partners
New Haven EJ PPP for New Source Review
Community Outreach List**

ELECTED

Elected Site Location Representatives

1. Alphonse Paolillo State Representative, District 97
2. St. Sen. Martin Looney State Senator, District 11
3. Salvatore DeCola Alder Ward 18

Federal Elected Officials

4. Office of Rosa DeLauro US Congresswoman (Lou Mangini/Jennifer Lamb)
5. Office of Richard Blumenthal US Senator (Kenny Curran/Mike Fallon)
6. Office of Christopher Murphy US Senator (Rich Murphy)

Local Alder Committee Member (*City Services & Environmental Policy Committee*)

7. Alder Anna Festa (Chair) City Services & Environmental Policy Committee – Ward 10
8. Alder Kam Singh (Vice Chair) City Services & Environmental Policy Committee – Ward 5
9. Alder Troy Streater – Ward 21
10. Alder Amy Marx – Ward 26
11. Alder Caroline Tanbee Smith – Ward 9
12. Alder Kiana Flores – Ward 1

Other Local New Haven Elected Officials

13. Mayor Justin Elicker
14. Board of Alder President Tyisha Walker-Myers
15. Alder Salvatore Punzo

New Haven State Legislators

16. St. Rep. Toni Walker House District 93
17. St. Rep. Roland Lemar House District 96
18. St. Sen. Gary Winfield Senate District
19. St. Rep. Steve Winter House District 94

NEW HAVEN STAFF

Local New Haven Staffers

20. Michael Piscitelli, Economic Development Administrator
21. Laura Brown, Ex-Officio Member (Director, City Plan Dept.)

- 22. Regina Rush-Kittle, Ex-Officio Member (CAO)
- 23. Giovanni Zinn, Ex-Officio Member (City Engineer)

NEW HAVEN AREA ENVIRONMENTAL GROUPS

New Haven Environmental Advisory Committee (EAC)

- 24. Laura Cahn, Chair
- 25. Alder Sal DeCola, Member
- 26. Tanya Wiedeking, Member
- 27. Kathleen Fay, Member
- 28. Iris H. Kaminski, Member
- 29. Xochitl (Cindy) Garcia, Member

EPA Region 1 Local

- 30. Keyana White, EJ Specialist assigned to New Haven community

New Haven Office of Climate and Sustainability Initiatives

- 31. Hannah Zoe Chua-Reyes, Policy Analyst
- 32. Steven Winter Head of Climate office & Now St. Rep. SWinter@newhavenct.gov

SCROG New Haven region Climate Action Plan

- 33. Benjamin Lovejoy, Project Manager
- 34. Stephanie Camp, Deputy Project Manager

Greater New Haven Clean Cities Coalition

- 35. Paul Wessel, Director: wessel@nhcleancities.org
- 36. Director, Market Development at U.S. Green Building Council
- 37. Lee Grannis, Board Chair

New Haven EJ Network

- 38. Chris Schweitzer <cschweitzer@newhavenleon.org>
- 39. Lynne Bonnett <lybonnett@gmail.com>
- 40. Laura Cahn laurasline@sbcglobal.net
- 41. Aaron Goode aaron.goode@gmail.com
- 42. Anstress Farwell - anstress@urbandesignleague.org
- 43. Lee Cruz eliezerleecruz@gmail.com
- 44. Alex Rodriguez alexrodriguez@savethesound.org

STATE WIDE ENVIRONMENTAL GROUPS

CT Zero Waste Coalition

- 45. Madison Spremulli - madisonspremulli@gmail.com

46. Sharon Lewis, Exec Director CCEEJ
47. Sharon Lewis environmentaljusticect@gmail.com
48. Ian McDonald mcdonaldstonemasonry@gmail.com
49. Diane Lauricella dlauricella24@yahoo.com
50. Kevin Budris kbudris@just-zero.org Just Zero
51. Marc Gonzalez mgonzalez@clf.org Conservation Law Foundation
52. Anne Hulick ahulick@cleanwater.org
53. Lori Brown lori.brown@ctlcw.org
54. Mike Ewall mike@energyjustice.net
55. Mark Mitchell mmitch3@gmu.edu
56. jvelazquez@acadiacenter.org

Other Environmental Groups

57. Local Attorney Ben Trachten, Safety Kleen Hearing
58. League of Conservation Voters?
59. CT Audubon Society: Rob LaFrance
60. Save the Sound: Alex Rodriguez alexrodriguez@savethesound.org
61. Save the Sound: Gabrella Campos urbanwaters2@savethesound.org

RELIGIOUS

Interreligious Eco Justice Network

62. Terri Eickel <teresa.eickel@gmail.com><https://irejn.org/about-us/staff/>

New Haven Baptist Churches

63. Rev. Dr. Boise Kimber First Calvary, New Haven
64. Rev. Samuel Lee, Immanuel Baptist Church
65. Rev. Cicely Little, New Freedom Missionary Baptist Church
66. Rev. John Cotton, New Hope Missionary Baptist Church
67. Rev. Milton Brown, Peoples Missionary Baptist Church
68. Rev. Phillipe Andal, Community Baptist Church
69. Rev. David Penn, Mt Bethel Missionary Baptist Church
70. Rev. Cicely Little, New Freedom Missionary Baptist Church

OTHER REGIONAL & STATE OFFICIALS

State Elected with Environmental/NH Focus

71. Joe Gresko, Former House Environment Committee Chair
72. John-Michael Parker, House Environment Committee Chair
73. Rick Lopes, Senate Environment Committee Chair
74. Steve Harding, Senate Environment Committee Ranking Member
75. Patrick Callahan House Environment Committee Ranking Member

- 76. Christine Cohen, Senate Transportation Committee Chair
- 77. Tony Hwang Senate Transportation Committee Ranking Member
- 78. Kathy Kennedy House Transportation Committee Ranking Member
- 79. St. Sen Paul Cicarella (EH) Local East Haven Legislator
- 80. St. Rep. Vin Candelora (EH) Local East Haven Legislator
- 81. St. Rep. Joe Zullo (EH) Local East Haven Legislator

OTHER COMMUNITY GROUPS

Greater New Haven Chamber of Commerce

- 82. Garrett Sheehan, President & CEO
- 83. Anne Benowitz, Vice President, Economic Development & Workforce Initiatives

From Alphonse Paolillo

- 84. Chuck Mascola (203) 675-5044 - President Mascola Group
- 85. Chris Olczyk (203) 627-0178
- 86. Sal Punzo Alder and Retired former New Haven Public Schools (NHPS) principal and teacher

Attachment E

Abutting Property Owners



- 1 85 081 0954 00100
85 Forbes Ave., New Haven, CT 06512
Owner - Power Test Realty Company
- 2 081 0954 00101
Forbes Ave., New Haven, CT 06512
Owner - State of Connecticut DOT
- 3 400 078 0954 00301
400 Waterfront St., New Haven, CT 06512
Owner - Lex Atlantic LLC
- 4 410 078 0954 00302
410 Waterfront St., New Haven, CT 06512
Owner - Lex Atlantic LLC

500
081 0954 00200
500 Waterfront St., New Haven, CT 06512
Owner - New Haven Terminals LLC

BASE MAP ACQUIRED AT:
City of New Haven GIS Property Viewer <https://experience.arc.com>



GLOBAL COMPANIES LLC
500 WATERFRONT ST., NEW HAVEN CONNECTICUT
NEW HAVEN TERMINAL
ENVIRONMENTAL JUSTICE PARTICIPATION PUBLIC PLAN
ADJACENT PROPERTY OWNERS

Attachment B

Newspaper Notices

GLOBAL PARTNERS

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT GLOBAL PARTNERS LP OPEN TO THE GENERAL PUBLIC AN INFORMATIONAL MEETING REGARDING:

Global New Haven Terminals LLC is seeking a New Source Review (NSR) permit for Tank 123 at its New Haven Terminal, located at 500 Waterfront Street, New Haven, CT. The project involves re-permitting the tank to transition from distillate to gasoline service, along with upgrades to the terminal's loading infrastructure to enhance operational efficiency and maintain compliance with environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected. As part of our commitment to transparency, environmental stewardship, and community engagement, Global respectfully invites residents and stakeholders to attend an informal public meeting to learn more, ask questions, and provide feedback. Two sessions will be held at New Haven City Hall (165 Church Street): one in English on June 23, 2025, and one in Spanish on June 24, 2025. Both sessions will be offered in person and via Microsoft Teams. A map of the facility and surrounding area is included with this notice. For more information and access to project documents, visit: www.globalp.com/terminals/new-haven.

MEETING DETAILS

SESSION 1 (ENGLISH LANGUAGE) WHEN: June 23, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 880 23 Passcode: eP32Ja7Z	SESSION 2 (SPANISH LANGUAGE) WHEN: June 24, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 295 491 172 497 Passcode: Lm9Vj93Y	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE: 1. Welcome and Introduction 2. Existing facility purpose, layout, and operations 3. Proposed facility purpose, layout, and operations 4. Safety Features Associated with Facility Operation 5. Questions and Answers

SUBMITTING PUBLIC COMMENTS

Community members are encouraged to submit written comments by July 8, 2025, via:

Email:
globalpartners@globalp.com

Mail:
Global Partners LP
Attn: Tom Keefe
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit:
<https://www.globalp.com/terminals/new-haven>.



Ad Order Number

0002925628

Customer Account

316725

Sales Rep.

mhutchings

Customer Information

GLOBAL PARTNERS

800 SOUTH STREET

WALTHAM MA 02454

USA

Order Taker

mhutchings

Ordered By

REID, EMAIL

Phone: 7813984082**Order Source**

Phone

Fax:**Email:****Ad Cost**

\$5,391.00

Payment Amt

\$0.00

Amount Due

\$5,391.00

Blind Box**Materials****Order Notes****Ad Number**

0002925628-01

External Ad #**Pick Up Number****Ad Type**

Legal Display

Ad Size

4 X 5.00"

PO Number**Color**

\$0.00

Color Requests**Product and Zone**

New Haven Register

Inserts

5

Placement

Public Notices

Note: Retail Display Ads May Not End in Identified Placement

Run Dates

6/16/2025, 6/17/2025, 6/18/2025, 6/19/2025, 6/20/2025

GLOBAL PARTNERS

ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA GLOBAL PARTNERS LP ABIERTO AL PÚBLICO GENERAL UNA REUNIÓN INFORMATIVA SOBRE:

Global New Haven Terminals LLC está pidiendo un permiso de New Source Review (NSR por sus siglas en inglés, Revisión de Fuente Nueva) para el Tanque 123 en su Terminal de New Haven, ubicado en el 500 Waterfront Street, New Haven, CT. El proyecto incluye que permita de nuevo que el tanque convierta de destilado a servicios de gasolina, junto con modernizaciones a la infraestructura del terminal para aumentar la efectividad operativa y mantener el cumplimiento con las normativas medioambientales. Estos cambios no impactarán de manera significativa las emisiones ni las operaciones de la instalación en general, tampoco se espera que haya alteración al suelo. Como parte de nuestro compromiso a la transparencia, la conservación del ambiente y la participación con la comunidad, con todo respeto Global invita a los residentes y partes interesadas que asistan a una reunión pública informal para aprender más, hacer preguntas, y aportar comentarios. Llevarán a cabo dos sesiones en el Ayuntamiento de New Haven (New Haven City Hall) (165 Church Street): una en inglés el 23 de junio, 2025 y una en español el 24 de junio, 2025. Se puede participar en las dos sesiones en persona o a través de Microsoft Teams. Se incluye un mapa de la instalación y la zona circundante con este anuncio. Para obtener más información y acceder a documentos sobre el proyecto, visite a: www.globalp.com/terminals/new-haven.

DETALLES DE LA REUNIÓN

SESIÓN 1 (EN INGLÉS) CUANDO: 23 de junio, 2025 6:00 PM DONDE: NEW HAVEN CITY HALL, 165 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 254 547 880 23 (Código de acceso) Passcode: eP32Ja7Z	SESIÓN 2 (EN ESPAÑOL) CUANDO: 24 de junio, 2025, 6:00 PM DONDE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 295 491 172 497 (Código de acceso) Passcode: Lm9Vj93Y	LA AGENDA PARA LA REUNIÓN INFORMATIVA SERÁ: 1. Bienvenidos y Presentación 2. El objetivo, el plano, y las operaciones de la instalación existentes 3. El objetivo, el plano, y las operaciones de la instalación propuestas 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas

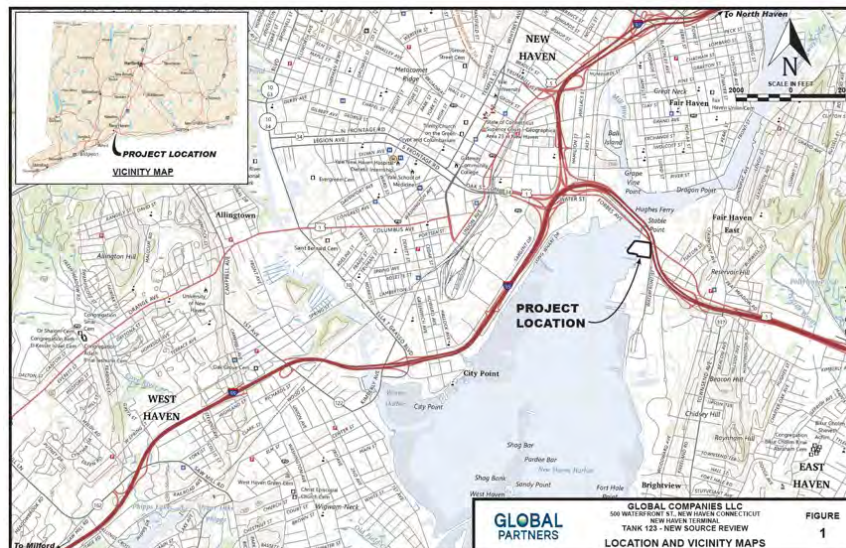
PARA ENTREGAR COMENTARIOS PÚBLICOS

Los animan a los miembros de la comunidad que entreguen comentarios escritos al más tardar el 8 de julio, 2025, a través de:

Correo Electrónico:
globalpartners@globalp.com

Correo:
Global Partners LP
Attn: Tom Keefe
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizados, o para confirmar su asistencia, favor de visitar: <https://www.globalp.com/terminals/new-haven/>



La Voz Hispana de Connecticut

51 Elm Street, Suite 307
New Haven, CT 06510

Invoice	
Invoice #	061925-00

Bill To Global Partners
800 South St
Suite 500
Waltham, MA 02453
Reid Lamberty

Salesperson		Publication Date 6/19/25		
Terms		Invoice Date 6/19/2025		
		P.O. No.		
Item	Quantity	Description of Service	Unit Price	Total
1/3 Page	1	1/3 Page Ad Anuncio de Reunion Publica Informativa.	675.00	675.00

Invoice Total	\$675.00
Payments/Credits	\$0.00
Current Account	\$675.00

*Mail all checks payable to: La Voz Hispana; 51 Elm Street Suite 307, New Haven, CT 06510. If you have any questions regarding the invoice, call ACCOUNTS PAYABLE at 203-865-2272. Thank You for choosing La Voz Hispana

Total Amount Due	\$675.00

Attachment C

Public Notice and Address List

GLOBAL PARTNERS

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT
GLOBAL PARTNERS LP
OPEN TO THE GENERAL PUBLIC
AN INFORMATIONAL MEETING REGARDING:

Global New Haven Terminals LLC is seeking a New Source Review (NSR) permit for Tank 123 at its New Haven Terminal, located at 500 Waterfront Street, New Haven, CT. The project involves re-permitting the tank to transition from distillate to gasoline service, along with upgrades to the terminal’s loading infrastructure to enhance operational efficiency and maintain compliance with environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected. As part of our commitment to transparency, environmental stewardship, and community engagement, Global respectfully invites residents and stakeholders to attend an informal public meeting to learn more, ask questions, and provide feedback. Two sessions will be held at New Haven City Hall (165 Church Street): one in English on June 23, 2025, and one in Spanish on June 24, 2025. Both sessions will be offered in person and via Microsoft Teams. A map of the facility and surrounding area is included with this notice. For more information and access to project documents, visit: www.globalp.com/terminals/new-haven.

GLOBAL PARTNERS
800 South Street
P.O.Box 9161
Waltham, MA 02454-9161

MEETING DETAILS

SESSION 1 (ENGLISH LANGUAGE) WHEN: June 23, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 880 23 Passcode: eP32Ja7Z	SESSION 2 (SPANISH LANGUAGE) WHEN: June 24, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 295 491 172 497 Passcode: Lm9Vj93Y	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE: 1. Welcome and Introduction 2. Existing facility purpose, layout, and operations 3. Proposed facility purpose, layout, and operations 4. Safety Features Associated with Facility Operation 5. Questions and Answers

SUBMITTING PUBLIC COMMENTS

Community members are encouraged to submit written comments by July 8, 2025, via:

Email:
globalpartners@globalp.com

Mail:
Global Partners LP
Attn: Tom Keefe
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit: <https://www.globalp.com/terminals/new-haven>.

GLOBAL PARTNERS

ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA
GLOBAL PARTNERS LP
ABIERTO AL PÚBLICO GENERAL
UNA REUNIÓN INFORMATIVA SOBRE:

Global New Haven Terminals LLC está pidiendo un permiso de New Source Review (NSR por sus siglas en inglés, Revisión de Fuente Nueva) para el Tanque 123 en su Terminal de New Haven, ubicado en el 500 Waterfront Street, New Haven, CT. El proyecto incluye que permita de nuevo que el tanque convierta de destilado a servicios de gasolina, junto con modernizaciones a la infraestructura del terminal para aumentar la efectividad operativa y mantener el cumplimiento con las normativas medioambientales. Estos cambios no impactarán de manera significativa las emisiones ni las operaciones de la instalación en general, tampoco se espera que haya alteración al suelo. Como parte de nuestro compromiso a la transparencia, la conservación del ambiente y la participación con la comunidad, con todo respeto Global invita a los residentes y partes interesadas que asistan a una reunión pública informal para aprender más, hacer preguntas, y aportar comentarios. Llevarán a cabo dos sesiones en el Ayuntamiento de New Haven (New Haven City Hall) (165 Church Street): una en inglés el 23 de junio, 2025 y una en español el 24 de junio, 2025. Se puede participar en las dos sesiones en persona o a través de Microsoft Teams. Se incluye un mapa de la instalación y la zona circundante con este anuncio. Para obtener más información y acceder a documentos sobre el proyecto, visite a: www.globalp.com/terminals/new-haven.

DETALLES DE LA REUNIÓN

SESIÓN 1 (EN INGLÉS) CUANDO: 23 de junio, 2025 6:00 PM DONDE: NEW HAVEN CITY HALL, 165 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 254 547 880 23 (Código de acceso) Passcode: eP32Ja7Z	SESIÓN 2 (EN ESPAÑOL) CUANDO: 24 de junio, 2025, 6:00 PM DONDE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 295 491 172 497 (Código de acceso) Passcode: Lm9Vj93Y	LA AGENDA PARA LA REUNIÓN INFORMATIVA SERÁ: 1. Bienvenidos y Presentación 2. El objetivo, el plano, y las operaciones de la instalación existentes 3. El objetivo, el plano, y las operaciones de la instalación propuestas 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas

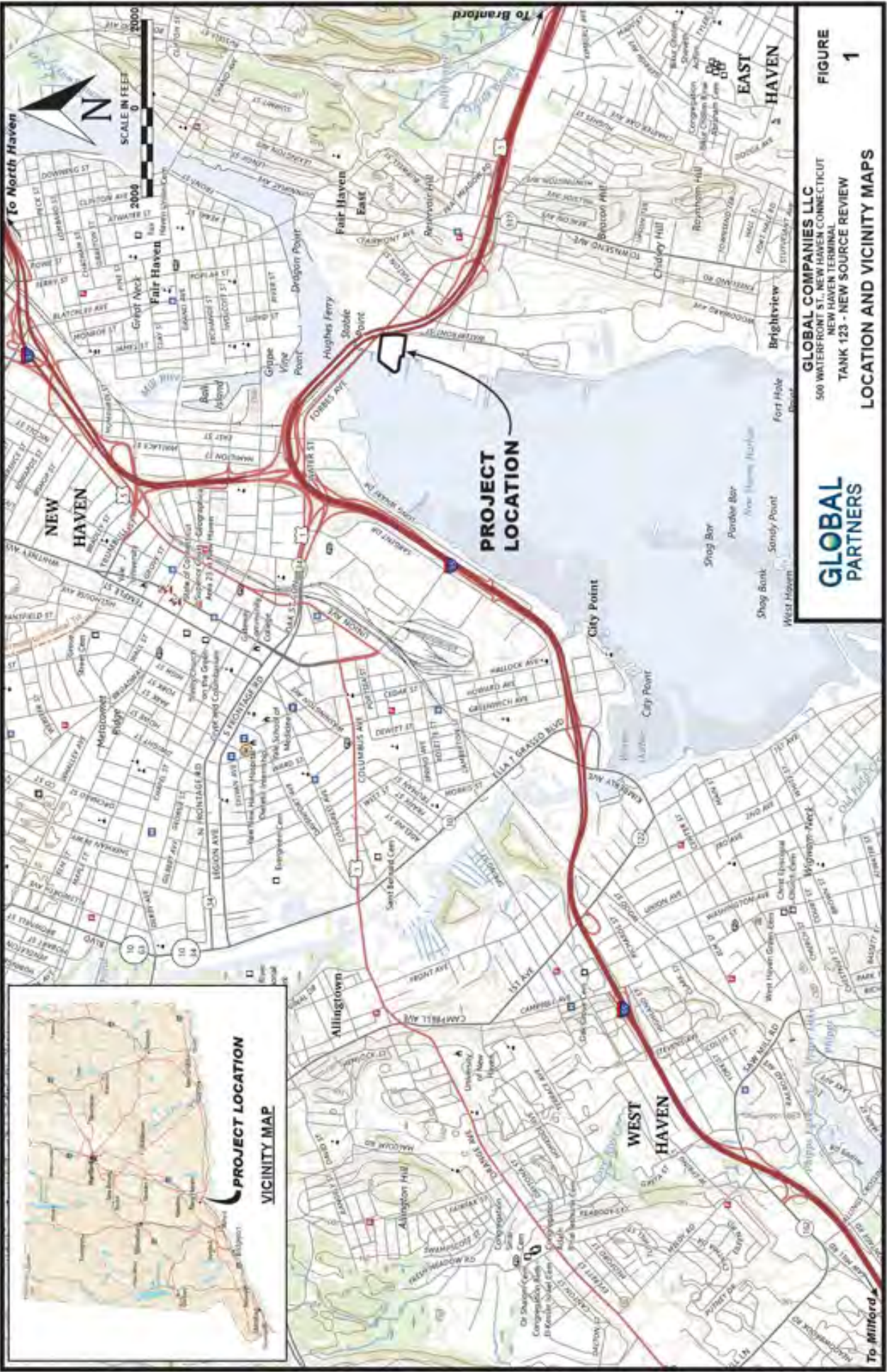
PARA ENTREGAR COMENTARIOS PÚBLICOS

Los animan a los miembros de la comunidad que entreguen comentarios escritos al más tardar el 8 de julio, 2025, a través de:

Correo Electrónico:
globalpartners@globalp.com

Correo:
Global Partners LP
Attn: Tom Keefe
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizados, o para confirmar su asistencia, favor de visitar: <https://www.globalp.com/terminals/new-haven/>



Global New Haven Terminal Public Notice - Mailing List		
Current Residence	Full Address	Zip Code
Current Residence	179 FULTON TER #179 NEW HAVEN, CT	06513
Current Residence	181 FULTON TER #181 NEW HAVEN, CT	06513
Current Residence	340 FORBES AV #340 NEW HAVEN, CT	06513
Current Residence	342 FORBES AV #342 NEW HAVEN, CT	06513
Current Residence	344 FORBES AV #344 NEW HAVEN, CT	06513
Current Residence	346 FORBES AV #346 NEW HAVEN, CT	06513
Current Residence	322 FORBES AV #322 NEW HAVEN, CT	06513
Current Residence	324 FORBES AV #324 NEW HAVEN, CT	06513
Current Residence	326 FORBES AV #326 NEW HAVEN, CT	06513
Current Residence	328 FORBES AV #328 NEW HAVEN, CT	06513
Current Residence	5 CHAMBERLAIN ST #5 NEW HAVEN, CT	06513
Current Residence	7 CHAMBERLAIN ST #7 NEW HAVEN, CT	06513
Current Residence	183 FULTON TER #183 NEW HAVEN, CT	06513
Current Residence	185 FULTON TER #185 NEW HAVEN, CT	06513
Current Residence	304 FORBES AV #304 NEW HAVEN, CT	06513
Current Residence	306 FORBES AV #306 NEW HAVEN, CT	06513
Current Residence	308 FORBES AV #308 NEW HAVEN, CT	06513
Current Residence	310 FORBES AV #310 NEW HAVEN, CT	06513
Current Residence	312 FORBES AV #312 NEW HAVEN, CT	06513
Current Residence	314 FORBES AV #314 NEW HAVEN, CT	06513
Current Residence	316 FORBES AV #316 NEW HAVEN, CT	06513
Current Residence	318 FORBES AV #318 NEW HAVEN, CT	06513
Current Residence	330 FORBES AV #330 NEW HAVEN, CT	06513
Current Residence	332 FORBES AV #332 NEW HAVEN, CT	06513
Current Residence	334 FORBES AV #334 NEW HAVEN, CT	06513
Current Residence	336 FORBES AV #336 NEW HAVEN, CT	06513
Current Residence	338 FORBES AV #338 NEW HAVEN, CT	06513
Current Residence	348 FORBES AV #348 NEW HAVEN, CT	06513
Current Residence	320 FORBES AV #320 NEW HAVEN, CT	06513
Current Residence	9 CHAMBERLAIN ST #9 NEW HAVEN, CT	06513
Current Residence	294 FORBES AV #294 NEW HAVEN, CT	06513
Current Residence	296 FORBES AV #296 NEW HAVEN, CT	06513
Current Residence	298 FORBES AV #298 NEW HAVEN, CT	06513
Current Residence	300 FORBES AV #300 NEW HAVEN, CT	06513
Current Residence	302 FORBES AV #302 NEW HAVEN, CT	06513
Current Residence	350 FORBES AV #350 NEW HAVEN, CT	06513
Current Residence	354 FORBES AV #354 NEW HAVEN, CT	06513
Current Residence	6 CHAMBERLAIN ST #1 NEW HAVEN, CT	06513
Current Residence	8 CHAMBERLAIN ST #2 NEW HAVEN, CT	06513
Current Residence	10 CHAMBERLAIN ST #3 NEW HAVEN, CT	06513
Current Residence	12 CHAMBERLAIN ST #4 NEW HAVEN, CT	06513
Current Residence	14 CHAMBERLAIN ST #5 NEW HAVEN, CT	06513

Current Residence	16 CHAMBERLAIN ST #6 NEW HAVEN, CT	06513
Current Residence	18 CHAMBERLAIN ST #7 NEW HAVEN, CT	06513
Current Residence	20 CHAMBERLAIN ST #8 NEW HAVEN, CT	06513
Current Residence	22 CHAMBERLAIN ST #9 NEW HAVEN, CT	06513
Current Residence	24 CHAMBERLAIN ST #10 NEW HAVEN, CT	06513
Current Residence	26 CHAMBERLAIN ST #11 NEW HAVEN, CT	06513
Current Residence	1 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	3 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	5 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	7 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	9 CHAMBERLAIN PL NEW HAVEN, CT	06513
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Current Residence	15 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	17 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	19 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	21 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	46 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	46 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	44 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	44 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	42 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	42 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	40 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	40 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	34 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	34 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	32 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	32 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	30 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	30 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
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Current Residence	28 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	28 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	36 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	36 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	38 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	38 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	48 CHAMBERLAIN ST #B NEW HAVEN, CT	06513
Current Residence	48 CHAMBERLAIN ST #A NEW HAVEN, CT	06513
Current Residence	111 STILES ST NEW HAVEN, CT	06513
Current Residence	261 FORBES AV NEW HAVEN, CT	06513
Current Residence	173 FULTON TER NEW HAVEN, CT	06513
Current Residence	EAST SHORE PKWY NEW HAVEN, CT	06513
Current Residence	WATERFRONT ST NEW HAVEN, CT	06513

Current Residence	44 FULTON ST NEW HAVEN, CT	06513
Current Residence	140 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	134 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	140 FULTON ST NEW HAVEN, CT	06513
Current Residence	126 FULTON ST NEW HAVEN, CT	06513
Current Residence	47 KENDALL ST NEW HAVEN, CT	06513
Current Residence	FORBES AV NEW HAVEN, CT	06513
Current Residence	227 FORBES AV NEW HAVEN, CT	06513
Current Residence	231 FORBES AV NEW HAVEN, CT	06513
Current Residence	239 FORBES AV NEW HAVEN, CT	06513
Current Residence	206 FULTON TER NEW HAVEN, CT	06513
Current Residence	125 STILES ST NEW HAVEN, CT	06513
Current Residence	265 FORBES AV NEW HAVEN, CT	06513
Current Residence	277 FORBES AV NEW HAVEN, CT	06513
Current Residence	195 FULTON TER NEW HAVEN, CT	06513
Current Residence	205 FULTON TER NEW HAVEN, CT	06513
Current Residence	FULTON TER NEW HAVEN, CT	06513
Current Residence	21 CHAMBERLAIN ST #21 NEW HAVEN, CT	06513
Current Residence	23 CHAMBERLAIN ST #23 NEW HAVEN, CT	06513
Current Residence	25 CHAMBERLAIN ST #25 NEW HAVEN, CT	06513
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Current Residence	55 CHAMBERLAIN ST NEW HAVEN, CT	06513
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Current Residence	40 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	36 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	50 CHAMBERLAIN ST NEW HAVEN, CT	06513
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Current Residence	30 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	34 CHAMBERLAIN PL NEW HAVEN, CT	06513
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Current Residence	111 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	115 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	58 FULTON ST NEW HAVEN, CT	06513
Current Residence	52 FULTON ST NEW HAVEN, CT	06513
Current Residence	48 FULTON ST NEW HAVEN, CT	06513

Current Residence	117 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	121 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	125 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	74 FARREN AV NEW HAVEN, CT	06513
Current Residence	70 FARREN AV NEW HAVEN, CT	06513
Current Residence	62 FARREN AV NEW HAVEN, CT	06513
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Current Residence	52 FARREN AV NEW HAVEN, CT	06513
Current Residence	48 FARREN AV NEW HAVEN, CT	06513
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Current Residence	91 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	57 GOODWIN ST NEW HAVEN, CT	06513
Current Residence	59 GOODWIN ST NEW HAVEN, CT	06513
Current Residence	61 GOODWIN ST NEW HAVEN, CT	06513
Current Residence	104 FULTON ST NEW HAVEN, CT	06513
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Current Residence	176 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	164 FAIRMONT AV NEW HAVEN, CT	06513

Current Residence	156 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	150 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	74 GOODWIN ST NEW HAVEN, CT	06513
Current Residence	50 GOODWIN ST NEW HAVEN, CT	06513
Current Residence	135 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	139 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	153 FAIRMONT AV NEW HAVEN, CT	06513
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Current Residence	169 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	175 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	179 FAIRMONT AV NEW HAVEN, CT	06513
Current Residence	340 CHAPEL ST NEW HAVEN, CT	06513
Current Residence	68 FARREN AV NEW HAVEN, CT	06513
Current Residence	LONG WHARF DR NEW HAVEN, CT	06513
Current Residence	LONG WHARF DR NEW HAVEN, CT	06513
Current Residence	1-21 CHAMBERLAIN PL NEW HAVEN, CT	06513
Current Residence	294-354 FORBES AV NEW HAVEN, CT	06513

Name	Title/Role	Mailing Address
Alphonse Paolillo	State Representative, District 97	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Martin Looney	State Senator, District 11	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Salvatore DeCola	Alder, Ward 18	165 Church Street, Room 238, New Haven, CT 06510
Rosa DeLauro	U.S. Congresswoman	59 Elm Street, New Haven, CT 06510
Richard Blumenthal	U.S. Senator	90 State House Square, 10th Floor, Hartford, CT 06103
Christopher Murphy	U.S. Senator	120 Huyshope Avenue, Suite 401, Hartford, CT 06106
Anna Festa	Alder, Ward 10	165 Church Street, Room 238, New Haven, CT 06510
Kam Singh	Alder, Ward 5	165 Church Street, Room 238, New Haven, CT 06510
Troy Streater	Alder, Ward 21	428 Dixwell Avenue, New Haven, CT 06511
Amy Marx	Alder, Ward 26	165 Church Street, Room 238, New Haven, CT 06510
Caroline Tanbee Smith	Alder, Ward 9	45 Nash Street, Apt 10, New Haven, CT 06511
Kiana Flores	Alder, Ward 1	165 Church Street, Room 238, New Haven, CT 06510
Justin Elicker	Mayor of New Haven	165 Church Street, New Haven, CT 06510
Tyisha Walker-Myers	President, Board of Alders	165 Church Street, Room 238, New Haven, CT 06510
Salvatore Punzo	Alder, Ward 17	44 Elizabeth Ann Drive, New Haven, CT 06512
Toni Walker	State Representative, District 93	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Roland Lemar	State Representative, District 96	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Gary Winfield	State Senator	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Steve Winter	State Representative, District 94	Legislative Office Building, 300 Capitol Ave, Hartford, CT 06106
Michael Piscitelli	Economic Development Administrator	165 Church Street, New Haven, CT 06510
Laura Brown	Director, City Plan Department	165 Church Street, New Haven, CT 06510
Regina Rush-Kittle	Chief Administrative Officer	165 Church Street, New Haven, CT 06510
Giovanni Zinn	City Engineer	165 Church Street, New Haven, CT 06510
Laura Cahn	Chair, Environmental Advisory Committee	165 Church Street, New Haven, CT 06510
Tanya Wiedeking	Member, Environmental Advisory Committee	165 Church Street, New Haven, CT 06510
Kathleen Fay	Member, Environmental Advisory Committee	165 Church Street, New Haven, CT 06510
Iris H. Kaminski	Member, Environmental Advisory Committee	165 Church Street, New Haven, CT 06510
Xochitl (Cindy) Garcia	Member, Environmental Advisory Committee	165 Church Street, New Haven, CT 06510
Keyana White	EPA Region 1 EJ Specialist	5 Post Office Square, Suite 100, Boston, MA 02109
Hannah Zoe Chua-Reyes	Policy Analyst, Office of Climate & Sustainability	165 Church Street, New Haven, CT 06510
Benjamin Lovejoy	Project Manager, SCROG	127 Washington Avenue, 4th Floor West, North Haven, CT 06473
Stephanie Camp	Deputy Project Manager, SCROG	127 Washington Avenue, 4th Floor West, North Haven, CT 06473
Paul Wessel	Director, Greater New Haven Clean Cities Coalition	165 Church Street, New Haven, CT 06510
Lee Grannis	Board Chair, Greater New Haven Clean Cities Coalition	165 Church Street, New Haven, CT 06510
Chris Schweitzer	New Haven EJ Network	165 Church Street, New Haven, CT 06510
Lynne Bonnett	New Haven EJ Network	165 Church Street, New Haven, CT 06510
Aaron Goode	New Haven EJ Network	165 Church Street, New Haven, CT 06510
Anstress Farwell	Urban Design League	165 Church Street, New Haven, CT 06510
Lee Cruz	New Haven EJ Network	165 Church Street, New Haven, CT 06510
Alex Rodriguez	Save the Sound	900 Chapel Street, Suite 2202, New Haven, CT 06510
Madison Spremulli	CT Zero Waste Coalition	165 Church Street, New Haven, CT 06510
Sharon Lewis	Executive Director, CCEEJ	165 Church Street, New Haven, CT 06510
Ian McDonald	CT Zero Waste Coalition	165 Church Street, New Haven, CT 06510
Diane Lauricella	CT Zero Waste Coalition	165 Church Street, New Haven, CT 06510
Kevin Budris	Just Zero	165 Church Street, New Haven, CT 06510
Marc Gonzalez	Conservation Law Foundation	62 Summer Street, Boston, MA 02110
Anne Hulick	Clean Water Action	165 Church Street, New Haven, CT 06510
Lori Brown	CT League of Conservation Voters	165 Church Street, New Haven, CT 06510

Mike Ewall	Energy Justice Network	1434 Elbridge Street, Philadelphia, PA 19149
Mark Mitchell	George Mason University	4400 University Drive, Fairfax, VA 22030
J. Velazquez	Acadia Center	165 Church Street, New Haven, CT 06510
Ben Trachten	Local Attorney	165 Church Street, New Haven, CT 06510
Rob LaFrance	CT Audubon Society	314 Unquowa Road, Fairfield, CT 06824
Gabriella Campos	Save the Sound	900 Chapel Street, Suite 2202, New Haven, CT 06510
Terri Eickel	Interreligious Eco Justice Network	20 Hartford Road, Manchester, CT 06040
Rev. Dr. Boise Kimber	First Calvary Baptist Church	1177 Chapel Street, New Haven, CT 06511
Rev. Samuel Lee	Immanuel Baptist Church	1324 Chapel Street, New Haven, CT 06511
Rev. Cicely Little	New Freedom Missionary Baptist Church	280 Starr Street, New Haven, CT 06511
Rev. John Cotton	New Hope Missionary Baptist Church	109 Butler Street, New Haven, CT 06511
Rev. Milton Brown	Peoples Missionary Baptist Church	78 Butler Street, New Haven, CT 06511
Rev. Phillipe Andar	Community Baptist Church	143 Shelton Avenue, New Haven, CT 06511
Rev. David Penn	Mt Bethel Missionary Baptist Church	100 Webster Street, New Haven, CT 06511
Joe Gresko	Former House Environment Committee Chair	300 Capitol Avenue, Hartford, CT 06106
John-Michael Parker	House Environment Committee Chair	300 Capitol Avenue, Hartford, CT 06106
Rick Lopes	Senate Environment Committee Chair	300 Capitol Avenue, Hartford, CT 06106
Steve Harding	Senate Environment Committee Ranking Member	300 Capitol Avenue, Hartford, CT 06106
Patrick Callahan	House Environment Committee Ranking Member	300 Capitol Avenue, Hartford, CT 06106
Christine Cohen	Senate Transportation Committee Chair	300 Capitol Avenue, Hartford, CT 06106
Tony Hwang	Senate Transportation Committee Ranking Member	300 Capitol Avenue, Hartford, CT 06106
Kathy Kennedy	House Transportation Committee Ranking Member	300 Capitol Avenue, Hartford, CT 06106
Paul Cicarella	State Senator, East Haven	300 Capitol Avenue, Hartford, CT 06106
Vin Candelora	State Representative, East Haven	300 Capitol Avenue, Hartford, CT 06106
Joe Zullo	State Representative, East Haven	300 Capitol Avenue, Hartford, CT 06106
Garrett Sheehan	President, Greater New Haven Chamber of Commerce	900 Chapel Street, 10th Floor, New Haven, CT 06510
Anne Benowitz	Vice President, Greater New Haven Chamber of Commerce	900 Chapel Street, 10th Floor, New Haven, CT 06510
Chuck Mascola	President, Mascola Group	165 Church Street, New Haven, CT 06510
Chris Olczyk	Community Member	165 Church Street, New Haven, CT 06510

Attachment D

Site Signage Photographs

GLOBAL PARTNERS

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT GLOBAL PARTNERS LP OPEN TO THE GENERAL PUBLIC AN INFORMATIONAL MEETING REGARDING:

Global New Haven Terminals LLC is seeking a New Source Review (NSR) permit for Tank 123 at its New Haven Terminal, located at 600 Waterfront Street, New Haven, CT. The project involves re-permitting the tank to transition from diesel to gasoline service, along with upgrades to the terminal's loading infrastructure to enhance operational efficiency and maintain compliance with environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected. As part of our commitment to transparency, environmental stewardship, and community engagement, Global respectfully invites residents and stakeholders to attend an informal public meeting to learn more, ask questions, and provide feedback. Two sessions will be held at New Haven City Hall (165 Church Street), one in English on June 23, 2025, and one in Spanish on June 24, 2025. Both sessions will be offered in person and via Microsoft Teams. A map of the facility and surrounding area is included with this notice. For more information and access to project documents, visit: www.globalpartners.com/terminals/new-haven.

MEETING DETAILS

SESSION 1 (ENGLISH) WHEN: June 23, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL, 165 CHURCH STREET, NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 880 23 Passcode: eP32Jz72	SESSION 2 (SPANISH) WHEN: June 24, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL, 165 CHURCH STREET, NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 296 491 172 497 Passcode: Lm9Yj83Y	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE: 1. Welcome and Introduction 2. Existing facility purpose, layout, and operations 3. Proposed facility purpose, layout, and operations 4. Safety Features Associated with Facility Operation 5. Questions and Answers

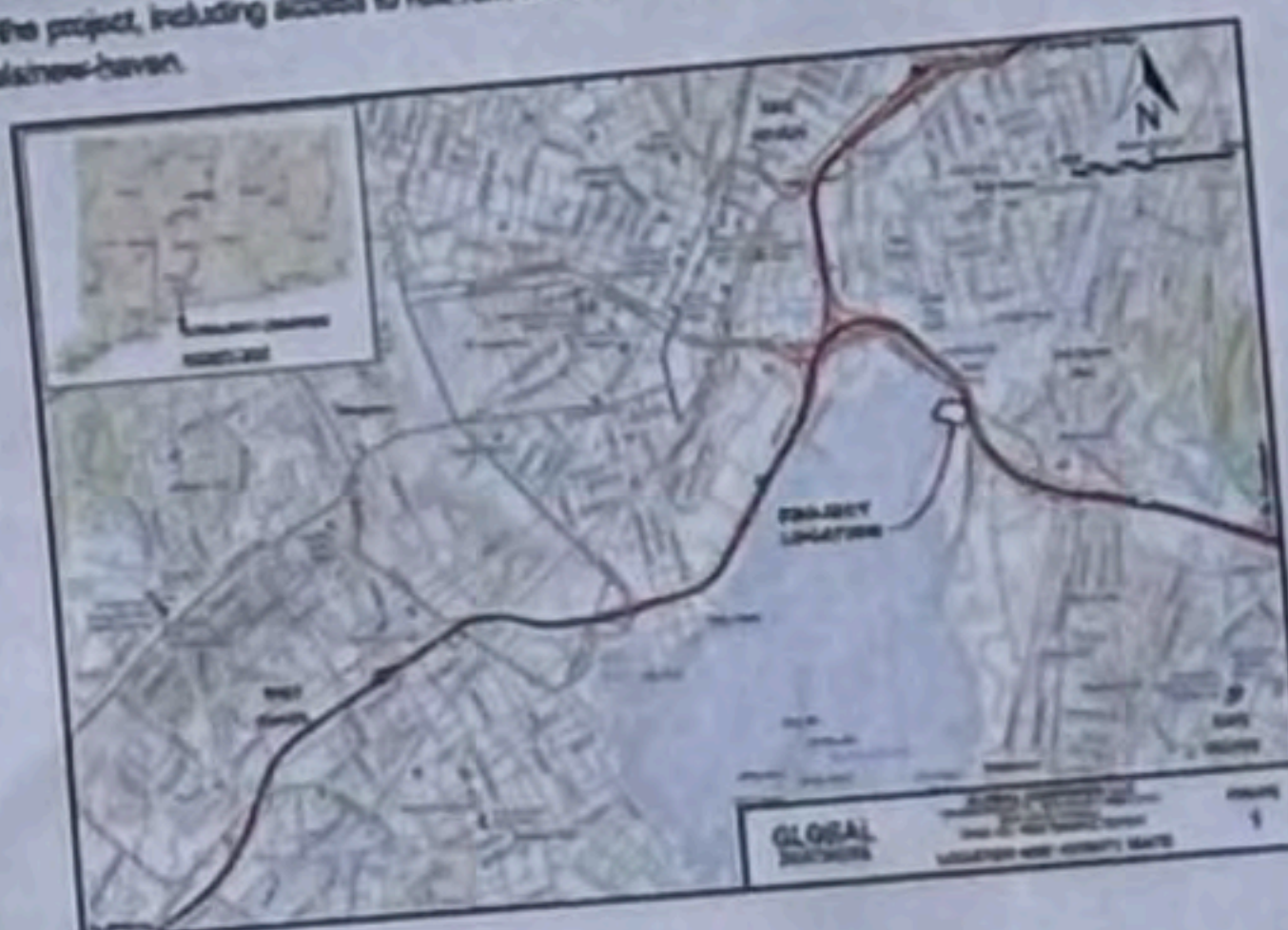
SUBMITTING PUBLIC COMMENTS

Community members are encouraged to submit written comments by July 8, 2025, via:

Email:
globalpartners@globalpartners.com

Mail:
Global Partners LP
Attn: Tom Keefe
600 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit:
<https://www.globalpartners.com/terminals/new-haven>



GLOBAL PARTNERS

ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA GLOBAL PARTNERS LP ABIERTO AL PÚBLICO GENERAL UNA REUNIÓN INFORMATIVA SOBRE:

Global New Haven Terminals LLC está pidiendo un permiso de New Source Review (NSR) por sus siglas en inglés, (Revisión de Fuente Nueva) para el Tanque 123 en su Terminal de New Haven, ubicado en el 600 Waterfront Street, New Haven, CT. El proyecto incluye que permita de nuevo que el tanque convierta de diesel a servicios de gasolina, junto con modernizaciones a la infraestructura del terminal para aumentar la eficiencia operativa y mantener el cumplimiento con las normativas medioambientales. Estos cambios no impactarán de manera significativa las emisiones ni las operaciones de la instalación en general, tampoco se espera que haya alteración al suelo. Como parte de nuestros compromisos a la transparencia, la conservación del ambiente y la participación con la comunidad, con todo respecto Global invita a los residentes y partes interesadas que visiten a una reunión pública informal para aprender más, hacer preguntas, y aportar comentarios. Llevarán a cabo dos sesiones en el Ayuntamiento de New Haven (New Haven City Hall) (165 Church Street), una en inglés el 23 de junio, 2025 y una en español el 24 de junio, 2025. Se puede participar en las dos sesiones en persona o a través de Microsoft Teams. Se incluye un mapa de la instalación y la zona circundante con este anuncio. Para obtener más información y acceder a documentos sobre el proyecto, visite a: www.globalpartners.com/terminals/new-haven.

DETALLES DE LA REUNIÓN

SESIÓN 1 (EN INGLÉS) CUANDO: 23 de junio, 2025 6:00 PM DONDE: NEW HAVEN CITY HALL, 165 CHURCH STREET, NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 254 547 880 23 (Código de acceso) Passcode: eP32Jz72	SESIÓN 2 (EN ESPAÑOL) CUANDO: 24 de junio, 2025, 6:00 PM DONDE: NEW HAVEN CITY HALL, 165 CHURCH STREET, NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams (ID de la reunión) Meeting ID: 296 491 172 497 (Código de acceso) Passcode: Lm9Yj83Y	LA AGENDA PARA LA REUNIÓN INFORMATIVA SERÁ: 1. Bienvenidos y Presentación 2. El objetivo, el plano, y las operaciones de la instalación existentes 3. El objetivo, el plano, y las operaciones de la instalación propuestas 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas

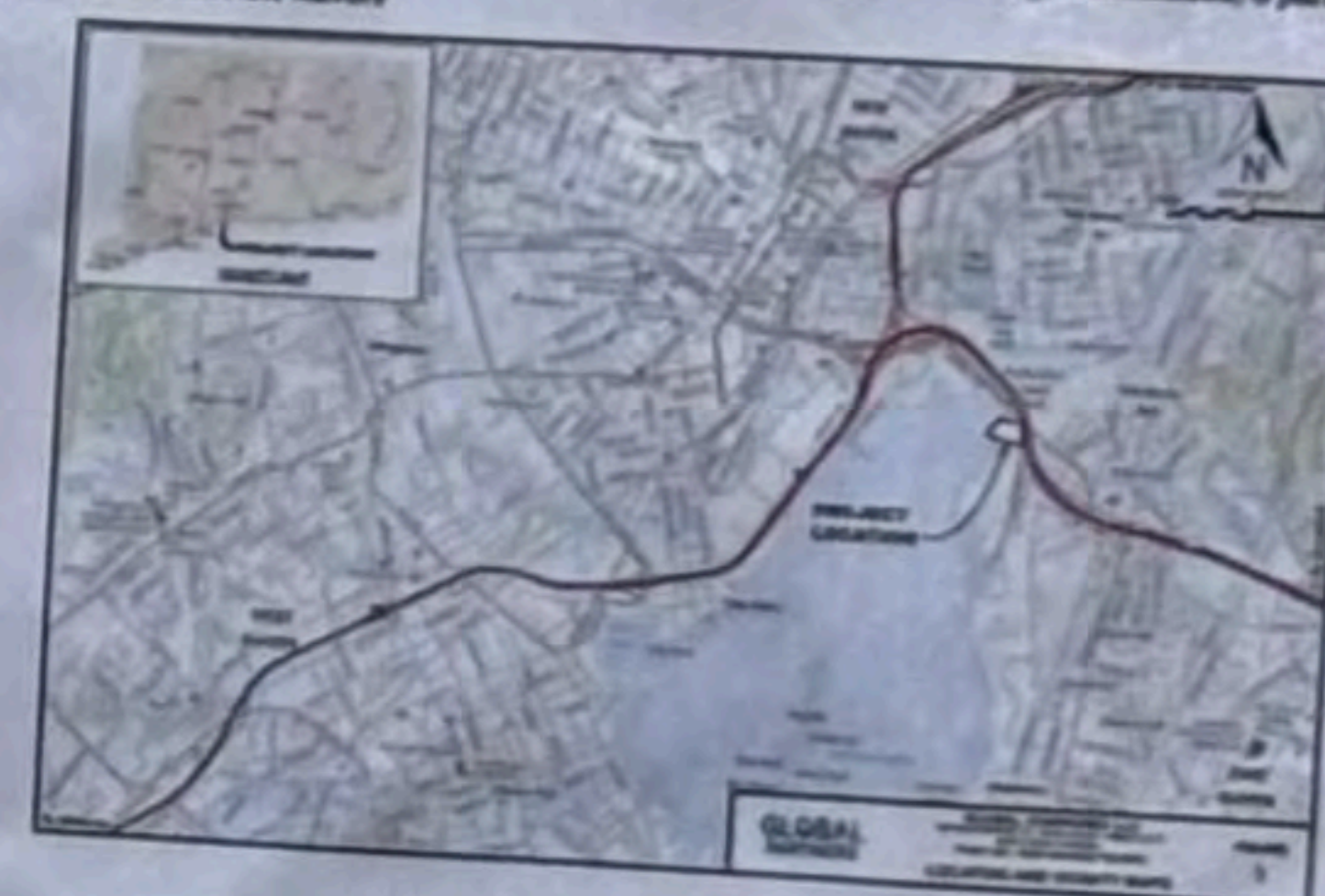
PARA ENTREGAR COMENTARIOS PÚBLICOS

Los miembros de la comunidad que entreguen comentarios escritos el más tardar el 8 de julio, 2025, a través de:

Correo Electrónico:
globalpartners@globalpartners.com

Correo:
Global Partners LP
Attn: Tom Keefe
600 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizados, o para confirmar su asistencia, favor de visitar: <https://www.globalpartners.com/terminals/new-haven/>



GLOBAL PARTNERS

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT
GLOBAL PARTNERS LP
OPEN TO THE GENERAL PUBLIC
AN INFORMATIONAL MEETING REGARDING:

Global New Haven Terminal LLC is building a New Source Review (NSR) permit for Tank 123 at its New Haven Terminal, located at 500 Waterford Street, New Haven, CT. The project involves upgrading the tank to transfer from double to positive venting, along with upgrades to the terminal's loading infrastructure to enhance operational efficiency and maintain compliance with environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected. As part of our commitment to transparency, environmental stewardship, and community engagement, Global respectfully invites residents and stakeholders to attend an informal public meeting to learn more, ask questions, and provide feedback. Two sessions will be held at New Haven City Hall (100 Church Street), one in English on June 23, 2025, and one in Spanish on June 24, 2025. Both sessions will be closed to press and via Microsoft Teams. A map of the facility and surrounding area is included with this notice. For more information and access to project documents, visit: www.globalpartnersnewhaventerminal.com.

MEETING DETAILS

SESSION 1 (ENGLISH LANGUAGE) WHEN: June 23, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 100 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 497 25 Passcode: 4P254725	SESSION 2 (SPANISH LANGUAGE) WHEN: June 24, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 100 CHURCH STREET NEW HAVEN, CT VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 497 25 Passcode: 4P254725	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE: 1. Welcome and Introduction 2. Existing facility purpose, layout, and operations 3. Proposed facility purpose, layout, and operations 4. Microsoft Teams 5. Microsoft Teams 6. Microsoft Teams 7. Microsoft Teams 8. Microsoft Teams 9. Microsoft Teams 10. Microsoft Teams 11. Microsoft Teams 12. Microsoft Teams 13. Microsoft Teams 14. Microsoft Teams 15. Microsoft Teams 16. Microsoft Teams 17. Microsoft Teams 18. Microsoft Teams 19. Microsoft Teams 20. Microsoft Teams 21. Microsoft Teams 22. Microsoft Teams 23. Microsoft Teams 24. Microsoft Teams 25. Microsoft Teams 26. Microsoft Teams 27. Microsoft Teams 28. Microsoft Teams 29. Microsoft Teams 30. Microsoft Teams 31. Microsoft Teams 32. Microsoft Teams 33. Microsoft Teams 34. Microsoft Teams 35. Microsoft Teams 36. Microsoft Teams 37. Microsoft Teams 38. Microsoft Teams 39. Microsoft Teams 40. Microsoft Teams 41. Microsoft Teams 42. Microsoft Teams 43. Microsoft Teams 44. Microsoft Teams 45. Microsoft Teams 46. Microsoft Teams 47. Microsoft Teams 48. Microsoft Teams 49. Microsoft Teams 50. Microsoft Teams 51. Microsoft Teams 52. Microsoft Teams 53. Microsoft Teams 54. Microsoft Teams 55. Microsoft Teams 56. Microsoft Teams 57. Microsoft Teams 58. Microsoft Teams 59. Microsoft Teams 60. Microsoft Teams 61. Microsoft Teams 62. Microsoft Teams 63. Microsoft Teams 64. Microsoft Teams 65. Microsoft Teams 66. Microsoft Teams 67. Microsoft Teams 68. Microsoft Teams 69. Microsoft Teams 70. Microsoft Teams 71. Microsoft Teams 72. Microsoft Teams 73. Microsoft Teams 74. Microsoft Teams 75. Microsoft Teams 76. Microsoft Teams 77. Microsoft Teams 78. Microsoft Teams 79. Microsoft Teams 80. Microsoft Teams 81. Microsoft Teams 82. Microsoft Teams 83. Microsoft Teams 84. Microsoft Teams 85. Microsoft Teams 86. Microsoft Teams 87. Microsoft Teams 88. Microsoft Teams 89. Microsoft Teams 90. Microsoft Teams 91. Microsoft Teams 92. Microsoft Teams 93. Microsoft Teams 94. Microsoft Teams 95. Microsoft Teams 96. Microsoft Teams 97. Microsoft Teams 98. Microsoft Teams 99. Microsoft Teams 100. Microsoft Teams

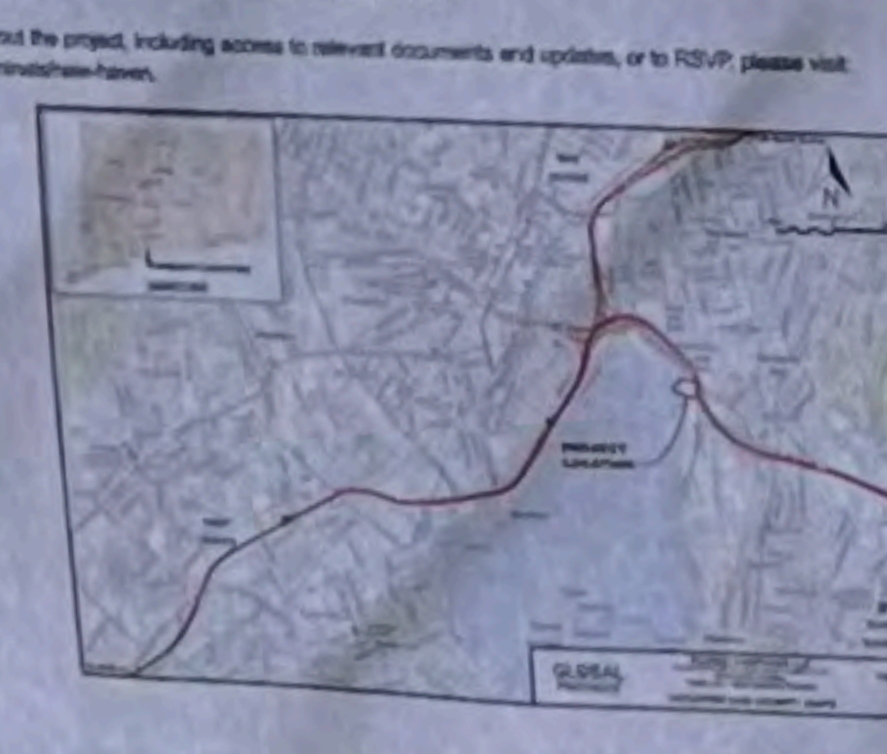
SUBMITTING PUBLIC COMMENTS

Comments received will be reviewed by June 25, 2025, via:

Email: globalpartners@global.com

Mail:
Global Partners LP
Attn: Tank 123
800 South Street, Suite 500
PO Box 9181
Watson, MA 02454-9181

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit: <https://www.globalpartnersnewhaventerminal.com>.



GLOBAL PARTNERS

ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA
GLOBAL PARTNERS LP
ABIERTO AL PÚBLICO GENERAL
UNA REUNIÓN INFORMATIVA SOBRE:

Global New Haven Terminal LLC está pidiendo un permiso de Nueva Fuente Review (NSR) por sus tanques en inglés. (Revisión de Fuente Nueva) para el Terminal 123 en su Terminal de New Haven, ubicado en el 500 Waterford Street, New Haven, CT. El proyecto incluye la actualización de la infraestructura del terminal para aumentar la eficiencia operativa y mantener el cumplimiento de las regulaciones ambientales, así como mejoras en la infraestructura de carga para mejorar la eficiencia operativa y mantener el cumplimiento de las regulaciones ambientales. Estos cambios no alterarán significativamente las operaciones generales del terminal ni las emisiones, y no se espera que haya perturbación en el suelo. Como parte de nuestro compromiso con la transparencia, la conservación del medio ambiente y el compromiso con las comunidades, Global invita a los residentes y partes interesadas que deseen a una reunión pública informal para aprender más, hacer preguntas, y compartir comentarios. Le invitamos a todos los residentes en el Ayuntamiento de New Haven (New Haven City Hall) (100 Church Street) una en inglés el 23 de junio, 2025 y una en español el 24 de junio, 2025. Se invita a todos los residentes en las dos sesiones en persona o a través de Microsoft Teams. Se incluye un mapa de la instalación y el área circundante con esta anuncio. Para obtener más información y acceder a documentos sobre el proyecto, visite a: www.globalpartnersnewhaventerminal.com.

DETALLES DE LA REUNIÓN

SESIÓN 1 (EN INGLÉS) CUANDO: 23 de junio, 2025, 6:00 PM DÓNDE: NEW HAVEN CITY HALL 100 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams Meeting ID: 254 547 497 25 Passcode: 4P254725	SESIÓN 2 (EN ESPAÑOL) CUANDO: 24 de junio, 2025, 6:00 PM DÓNDE: NEW HAVEN CITY HALL 100 CHURCH STREET NEW HAVEN, CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams Meeting ID: 254 547 497 25 Passcode: 4P254725	LA AGENDA PARA LA REUNIÓN INFORMATIVA SERÁ: 1. Bienvenida y Presentación 2. El objetivo, el plan, y las operaciones de la instalación existentes 3. El objetivo, el plan, y las operaciones de la instalación propuesta 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas

PARA ENTREGAR COMENTARIOS PÚBLICOS

Los comentarios a los miembros de la comunidad que envíen comentarios escritos al más tardar el 8 de julio, 2025, a través de:

Correo Electrónico:
globalpartners@global.com

Correo:
Global Partners LP
Attn: Tank 123
800 South Street, Suite 500
PO Box 9181
Watson, MA 02454-9181

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizados, o para confirmar su asistencia, favor de visitar: <https://www.globalpartnersnewhaventerminal.com>.



**PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT
GLOBAL PARTNERS LP
OPEN TO THE GENERAL PUBLIC
AN INFORMATIONAL MEETING REGARDING:**

New York: The New York Times LLC is a member of New Science Network (NSN) proud to bring Tank 123 to its New Haven location, located at 500 Waterfront Street, New Haven, CT. The project mission is to bring the tank to life by transforming from distillate to gasoline service, along with upgrades to the terminal's loading infrastructure to enhance operational efficiency and maintain compliance with the latest environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected from this project. We are committed to transparency, environmental stewardship, and community engagement. Tank respectfully invites residents and stakeholders to share their input on our development and public meeting to learn more, ask questions, and provide feedback. The sessions will be held at New Haven City Hall (100 Church Street), one of our closest locations to public meeting to learn more, ask questions, and provide feedback. All sessions will be offered in person and via Microsoft Teams. Among of the facility and surrounding areas is included with this notice. For more information and access to project documents, visit: www.globo.com/newhavan-haven.

SESSION 1 ENGLISH LANGUAGE WHEN: June 22, 2:00S- 6:00 PM WHERE: NEW HOVEN CITY HALL 180 CHURCH STREET NEW HAVEN, CT	SESSION 2 SPANISH LANGUAGE WHEN: June 23, 6:00 PM WHERE: NEW HAVEN CITY HALL 180 CHURCH STREET NEW HAVEN, CT	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE: 1. Welcome and Introduction 2. Existing facility purposes, layout, and operations 3. Proposed facility purposes, layout, and operations 4. Facility Features Associated with Facility Operation 5. Questions and Answers

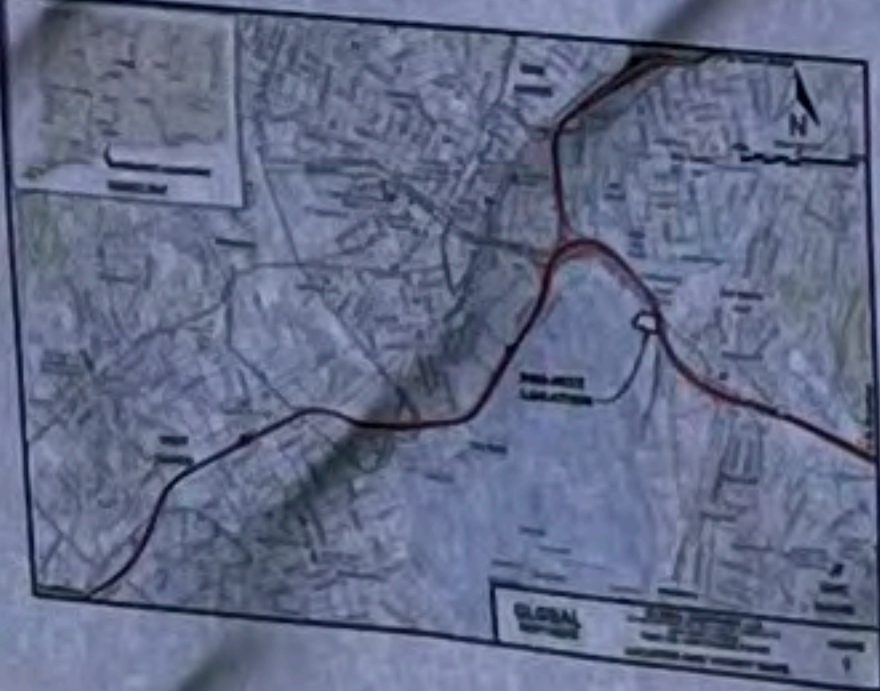
SUBMITTING INFORMATION

Contributors are encouraged to submit written comments by July 8, 2022, via:

Email: globalpartners@globep.com

Mail:
Global Partners LP
Attn: Tom Kwak
800 South Street, Suite 500
P.O. Box 1781
Needham, MA 02454-0781

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit: <https://www.globepc.com/terminusnew-haven>.



ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA
GLOBAL PARTNERS LP
ABIERTO AL PÚBLICO GENERAL
UNA REUNIÓN INFORMATIVA SOBRE:

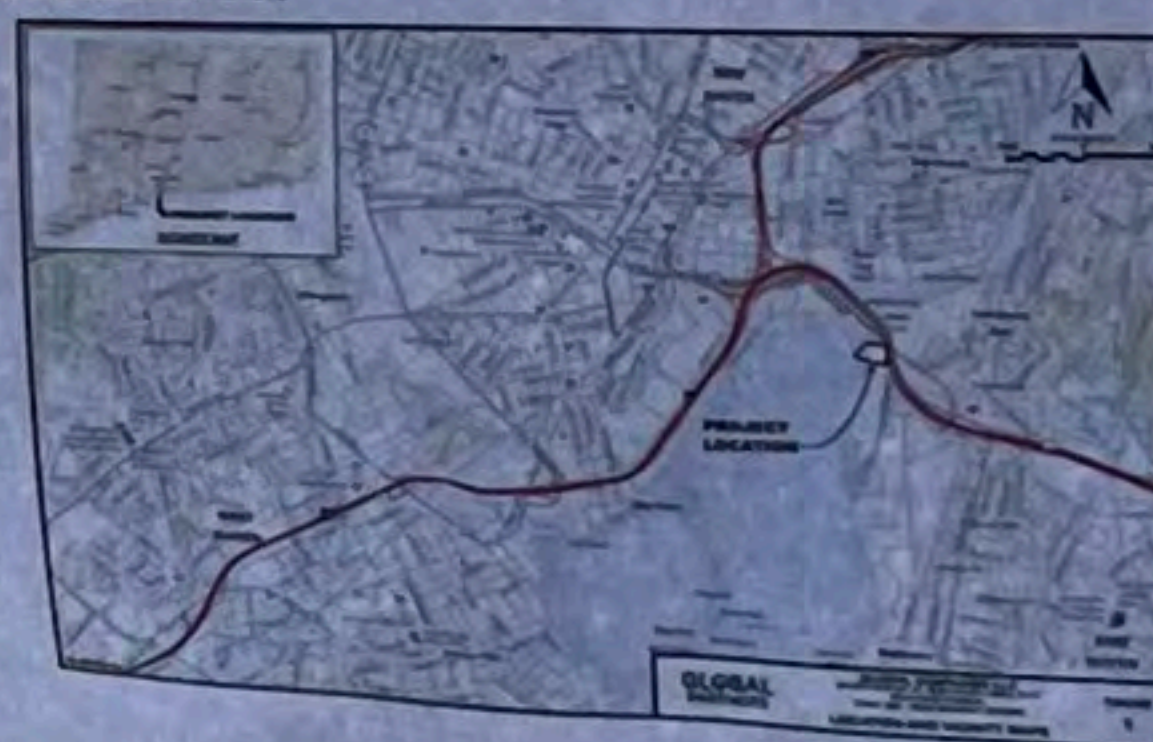
[illegible]

SESIÓN 2 (en inglés) CUANDO 25 DE JUNIO 2023, 8:00 PM DONDE NEWBURY COURT HALL 185 CHURCH STREET/NEWAYEN CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAM: Microsoft (Go to the reunión) Meeting ID: 254 547 Room 32 (Código de acceso) Passcode: 0587427	SESIÓN 3 (en español) CUANDO 26 DE JUNIO 2023, 6:00 PM DONDE NEWBURY COURT HALL 185 CHURCH STREET NEWBURY CT PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAM: Microsoft Teams (Go to the reunión) Meeting ID: 286 493 172 497 (Código de acceso) Passcode: LmNjY5jY	LA AGENDA PARA LA REUNIÓN INFORMAL SERÁ: 1. Bienvenida y Presentación 2. Objetivo, el plan, y las operaciones de la instalación existentes 3. El objetivo, el plan, y las operaciones de la instalación propuestas 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas

Los Leamos a los miembros de la comunidad que entreguen comentarios escritos más tarde del 8 de julio, 2023, a través de:

Correo Electrónico: globalpartners@globetop.com	Correo: Global Partners LP Attn: Tom Keadle 610 South Street, Suite 500 P.O. Box 9161 Waltham, MA 02454-9161

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizados, o para confirmar su asistencia, favor de visitar: <https://www.globetop.com/mineralwaters-honey/>



GLOBAL PARTNERS

PUBLIC INFORMATIONAL MEETING ANNOUNCEMENT GLOBAL PARTNERS LP OPEN TO THE GENERAL PUBLIC AN INFORMATIONAL MEETING REGARDING:

Global New Haven Terminals LLC is seeking a New Source Review (NSR) permit for Tank 123 at its New Haven Terminal, located at 500 Waterfront Street, New Haven, CT. The project involves re-permitting the tank to transition from distillate to gasoline service, along with upgrades to the terminal's loading infrastructure to enhance operational efficiency and maintain compliance with environmental regulations. These changes will not significantly alter overall facility operations or emissions, and no ground disturbance is expected. As part of our commitment to transparency, environmental stewardship, and community engagement, Global respectfully invites residents and stakeholders to attend an informal public meeting to learn more, ask questions, and provide feedback. Two sessions will be held at New Haven City Hall (165 Church Street): one in English on June 23, 2025, and one in Spanish on June 24, 2025. Both sessions will be offered in person and via Microsoft Teams. A map of the facility and surrounding area is included with this notice. For more information and access to project documents, visit: www.globalp.com/terminals/new-haven.

MEETING DETAILS

SESSION 1 (ENGLISH LANGUAGE)	SESSION 2 (SPANISH LANGUAGE)	THE AGENDA FOR THE INFORMATIONAL MEETING WILL BE:
WHEN: June 23, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT	WHEN: June 24, 2025, 6:00 PM WHERE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT	1. Welcome and introduction 2. Existing facility purpose, layout, and operations 3. Proposed facility purpose, layout, and operations 4. Safety Features Associated with Facility Operation 5. Questions and Answers
VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 254 547 880 23 Passcode: eP32Jh7Z	VIRTUAL ATTENDANCE VIA TEAMS: Microsoft Teams Meeting ID: 295 491 172 497 Passcode: Lm9v93Y	

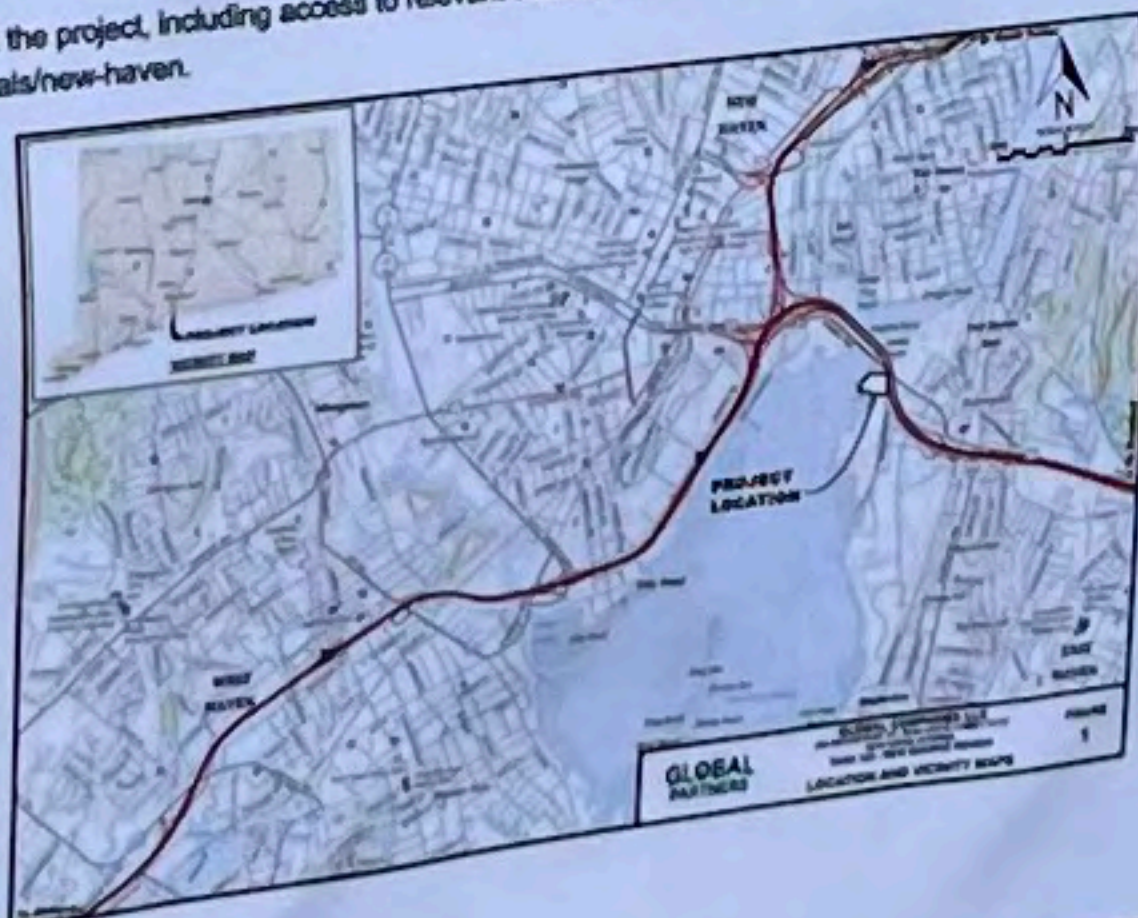
SUBMITTING PUBLIC COMMENTS

Community members are encouraged to submit written comments by July 8, 2025, via:

Email:
globalpartners@globalp.com

Mail:
Global Partners LP
Attn: Tom Kuehl
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

For additional information about the project, including access to relevant documents and updates, or to RSVP, please visit:
<https://www.globalp.com/terminals/new-haven>



GLOBAL PARTNERS

ANUNCIO DE REUNIÓN PÚBLICA INFORMATIVA GLOBAL PARTNERS LP ABIERTO AL PÚBLICO GENERAL UNA REUNIÓN INFORMATIVA SOBRE:

Global New Haven Terminals LLC está pidiendo un permiso de New Source Review (NSR) por un tanque en inglés. Residencia de Puerto Nuevo para el Tanque 123 en su Terminal de New Haven, ubicado en el 500 Waterfront Street, New Haven, CT. El proyecto incluye que permita de nuevo que el tanque convierta de distillate a gasolina de gasolina, junto con modernizaciones a la infraestructura del terminal para aumentar la eficiencia operativa y mantener el cumplimiento con las normativas medioambientales. Estas cambios no impactarán de manera significativa las emisiones o las operaciones de la instalación en general, tampoco se espera que haya alteración al suelo. Como parte de nuestra compromiso a la transparencia, la comunicación de la instalación en general, invitamos a los residentes y partes interesadas a asistir a una reunión pública informal para aprender más, hacer preguntas, y aportar comentarios. Le invitamos a todos los residentes en el Ayuntamiento de New Haven (New Haven City Hall) (165 Church Street) una en inglés el 23 de junio, 2025 y una en español el 24 de junio, 2025. Se puede participar en las dos sesiones en persona o a través de Microsoft Teams. Se incluye un mapa de la instalación y la zona circundante con este anuncio. Para obtener más información y acceder a documentos sobre el proyecto, visite a: www.globalp.com/terminals/new-haven.

DETALLES DE LA REUNIÓN

SESIÓN 1 (EN INGLÉS)	SESIÓN 2 (EN ESPAÑOL)	LA AGENDA PARA LA REUNIÓN INFORMATIVA SERÁ:
CUANDO: 23 de junio, 2025, 6:00 PM DONDE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT	CUANDO: 24 de junio, 2025, 6:00 PM DONDE: NEW HAVEN CITY HALL 165 CHURCH STREET NEW HAVEN, CT	1. Bienvenida y Presentación 2. El objetivo, el plan, y las operaciones de la instalación existentes 3. El objetivo, el plan, y las operaciones de la instalación propuesta 4. Medidas de seguridad asociadas con la operación de la instalación 5. Preguntas y Respuestas
PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams Meeting ID: 254 547 880 23 (Código de acceso) Passcode: eP32Jh7Z	PARA ASISTIR VIRTUALMENTE A TRAVÉS DE TEAMS: Microsoft Teams Meeting ID: 295 491 172 497 (Código de acceso) Passcode: Lm9v93Y	

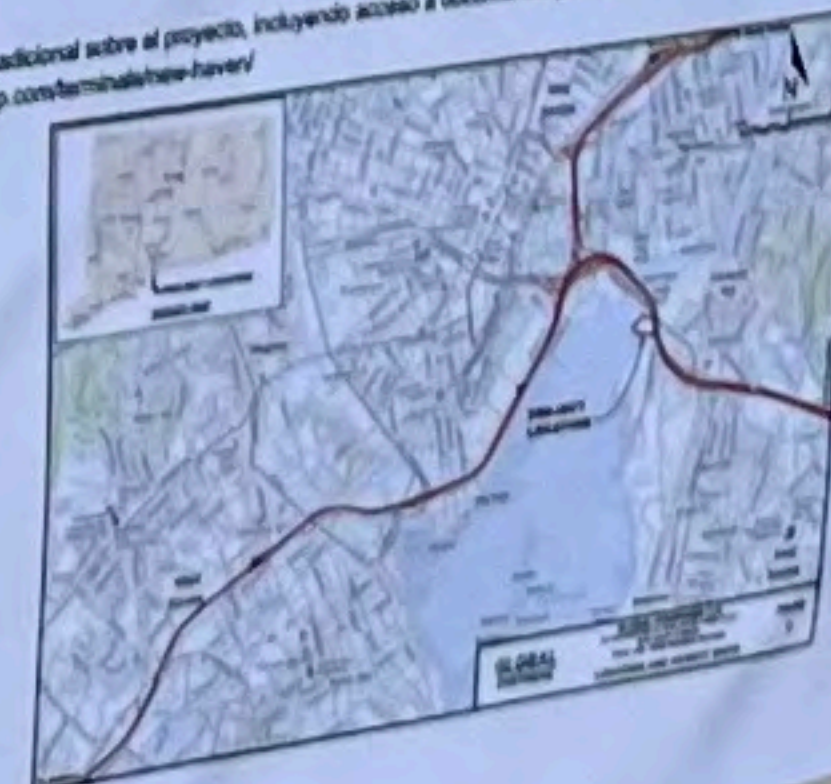
PARA ENTREGAR COMENTARIOS PÚBLICOS

Los miembros de la comunidad que entreguen comentarios escritos al más tardar el 8 de julio, 2025, a través de:

Correo Electrónico:
globalpartners@globalp.com

Correo:
Global Partners LP
Attn: Tom Kuehl
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

Para obtener información adicional sobre el proyecto, incluyendo acceso a documentos pertinentes y actualizaciones, o para confirmar su asistencia, favor de visitar: <https://www.globalp.com/terminals/new-haven>



Attachment E

Affidavit of Compliance

**Affidavit of Compliance with Environmental Justice Public Participation
Requirements for the Global New Haven New Source Review**

I, Sean T. Geary, hereby affirm the following:

1. I am the Chief Legal Officer of Global Partners LP, the ultimate parent company of Global New Haven Terminals LLC and Global Companies LLC (collectively, "Global").
2. I have reviewed the Connecticut Environmental Justice Law (Connecticut General Statutes §22a-20a) and the 2024 Environmental Justice Public Participation Guidance issued by the Connecticut Department of Energy and Environmental Protection ("CT DEEP").
3. I affirm that Global has fully complied with the public participation requirements established under §22a-20a and the DEEP guidance, including but not limited to:
 - a. Preparing and implementing a DEEP-approved Environmental Justice Public Participation Plan;
 - b. Conducting meaningful, accessible public outreach to the affected Environmental Justice community;
 - c. Providing bilingual notice of the proposed permit activity and public meetings;
 - d. Holding two in-person Informational Public Meetings—one in English and one in Spanish—at New Haven City Hall; and
 - e. Documenting all activities, comments, and responses in this Public Participation Report, as required by DEEP.
4. I further affirm that this Report includes:
 - a. A copy of the public notices and summary of outreach efforts;
 - b. Video recording of each Informational Public Meeting;
 - c. A summary of all verbal and written comments received; and
 - d. Responses to each of those comments, including any changes made to the proposed activity.

I certify under penalty of law that the foregoing is true and correct to the best of my knowledge, information, and belief.

Executed this 22nd day of July, 2025.


Sean T. Geary
Chief Legal Officer
Global Partners LP

State of Massachusetts
County of Middlesex

Subscribed and sworn to before me this 22nd day of July, 2025.

Notary Public Meghan V. Thibodeau
My Commission Expires: 12/7/29



Attachment F

Meeting Q&A Notes

Questions During New Haven Public Meeting- 6/23/25

Q. Flood preparedness, mentioned BFE and what would happen if a Category 5 hurricane was to hit.

A. (Tom) As part of the redesign of Tank 123 installation, the dike was reconfigured and finishing up the lining. (Sean) said CT has new requirements for stormwater pollution prevention, and we plan to comply with those requirements.

Q. Biodiesel offered?

A. Think Katherine said we offer through the East Haven facility.

Q. Vapor recovery process – how does it work?

A. Tom explained how it works.

Q. Is it (fuel) mostly coming in through the dock area and out by truck?

A. Katherine confirmed how it works.

Edith Pestana mentioned in post-discussion with Laurie Parry that the person asking the questions was Aaron Goode of the New Haven Environmental Justice Network.

Attachment G

Written Public Comments

Dear Global Partners,

Withdraw your application to renew the perm
for Tank 123 at the New Haven Termi

Tank 123 is located in a flood zone. This
is a dangerous and short-sighted plan that has
no one.

Climate change kills. it killed me.

I wonder who it will kill next?

My name is Ethelyn Joiner and you
took everything from me.

Dear Global Partners,

My name is Audrey Rostkowski and I will drag you down to Hell with me.

Withdraw your application for Tank 123 in the New Haven Terminal.

Whatever Global Partners stands to gain, it pales in comparison to what a few days of "unprecedented" bad weather can do to you.

Just look at what it did to me.



GLOBAL COMPANIES LLC
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

p: 781-894-8800
f: 781-398-9000

Attachment H

Community Environmental Benefit Agreement (CEBA)



Community Environmental Benefit Agreement

Between:

City of New Haven, Connecticut and Global New Haven Terminals LLC and Global Companies LLC

Date: July 22, 2025

I. Purpose

This Community Environmental Benefit Agreement ("Agreement") is made and entered into by and between the City of New Haven ("City") and Global New Haven Terminals LLC and Global Companies LLC (singly and collectively, "Global"). Global Partners LP, a publicly traded master limited partnership, is the ultimate parent company of both Global New Haven Terminals LLC and Global Companies LLC. This Agreement is executed in accordance with the Connecticut General Statutes §22a-20a and the 2024 Environmental Justice Public Participation Guidance issued by the Connecticut Department of Energy and Environmental Protection ("CT DEEP").

Global operates a bulk petroleum distribution terminal at 500 Waterfront Street in New Haven, Connecticut (the "New Haven Terminal"). In support of its New Source Review (NSR) permit application for transitioning Tank 123 from distillate to gasoline service, Global is committed to being a responsible corporate neighbor and environmental steward.

This Agreement formalizes a negotiated community environmental benefit designed to address potential concerns associated with the proposed project. The benefit reflects direct engagement and input from municipal officials and community leaders, including representatives of the City's Environmental Advisory Council and Economic Development Office.

II. Background and Context

The project prompting this Agreement is the proposed re-permitting of Tank 123 to allow for gasoline storage and the associated upgrades to the terminal's truck loading rack infrastructure. The New Haven Terminal is located within an Environmental Justice ("EJ") community and within a city that hosts five or more affected facilities, as defined by Connecticut General Statutes §22a-20a.

Global has conducted direct outreach to a variety of stakeholders including:

- Alder Sal Punzo (Ward 18)
- Environmental Advisory Council members
- City of New Haven Economic Development Office (Michael Piscitelli)
- Mayor's Office staff
- New Haven Port Authority leadership

These discussions informed Global's understanding of local priorities, including site maintenance, environmental visibility, youth engagement and environmental awareness.

III. Community Environmental Benefit

To address local community priorities, Global agrees to provide the community with environmental benefits through a \$15,000 contribution to ***The Foundation for New Haven Parks***, a registered nonprofit supporting neighborhood beautification and environmental education initiatives in EJ communities across the City.

This contribution will be used for community-benefiting purposes, such as:

- Urban greening and beautification efforts in the Annex neighborhood or proximate EJ areas
- Environmental education and engagement programming for local youth
- Small-scale public improvements supporting neighborhood well-being

The Foundation for New Haven Parks will determine the specific use of the funds, in consultation with the City and based on community needs.

IV. Implementation and Terms

1. **Timing:** The contribution to The Foundation for New Haven Parks will be made within 30 days of permit issuance unless otherwise agreed upon in writing.
2. **Public Notice and Access:** A copy of this signed Agreement will be included in the final Public Participation Report submitted to CT DEEP and made available on Global's website (www.globalp.com).
3. **Modifications:** This Agreement may be amended only by mutual written agreement between the City and Global.

V. Signatures



GLOBAL COMPANIES LLC
800 South Street, Suite 500
P.O. Box 9161
Waltham, MA 02454-9161

p: 781-894-8800
f: 781-398-9000

For the City of New Haven:

Justin Elicker, Mayor

Signed: _____

Date: _____

For Global New Haven Terminals LLC and Global Companies LLC:

Sean T. Geary, Chief Legal Officer

Signed: _____

Date: _____

ATTACHMENT AA – PUBLISHED PUBLIC NOTICE OF PERMIT
APPLICATION



Connecticut Department of
Energy & Environmental Protection

Certification of Notice Form - Notice of Application

DEEP USE ONLY

Division

Application No.

I, Thomas Keefe, certify that
(Name of Applicant)

the attached notice represents a true copy of the notice that appeared in New Haven Register
(Name of Newspaper)

on 8/15/2025
(Date)

I also certify that I have provided a copy of said notice to the chief elected municipal official listed below as required by section 22a-6g CGS.

Justin Elicker

Mayor of City of New Haven

Name of Official

Title of Official

165 Church Street

Address

New Haven

CT

06510

City/Town

State

Zip Code

8/18/25

Signature of Applicant

Date

Thomas Keefe

Vice President EHS

Name of Applicant (print or type)

Title (if applicable)

PUBLIC NOTICES

Notice of Auction

19 VW Jetta 3VWE57BU6KM035476 Monday 8/25 7am
142 Wakelee Ave Ansonia CT 06401

Notice of Auction

19 Chevy Equinox 3GNAXXEV9KS620393 Monday 8/25 7am
142 Wakelee Ave Ansonia CT 06401

NOTICE

NOTICE OF SALE: PURSUANT TO AN ORDER OF THE SUPERIOR COURT HOUSING SESSION JUDICIAL DISTRICT OF NEW HAVEN HOUSING SESSION, DATED July 24, 2025 DOCKET NUMBER - NHH-CV-23-6020511-S, RYDER WOODS RESIDENTS ASSOCIATION, INC. V. KIMBERLY HUEFFMAN, a public sale of a Mobile Manufactured Home owned by KIMBERLY HUEFFMAN, shall be held at 91 McQuillan Drive, Milford, CT 06460 on AUGUST 23, 2025, at 10:00 A.M. Any person, including a lien holder, an interest holder, or the owner of the mobile manufactured home park, may bid at the sale. THE SALE WILL EXTINGUISH ALL PREVIOUS OWNERSHIP RIGHTS, INTERESTS, AND LIEN RIGHTS. PLAINTIFF: BY MICHAEL E. STONE, ITS ATTORNEY, 250 STATE STREET, #D2, NORTH HAVEN, CT 06473, 203-248-6440, JURIS # 406148

Polling Places - Local Elections

The following polling places will be used for the 2025 Elections. Only one polling place is located outside its voting district, in an adjacent district:

District 1: Miller Library, situated in District 4

DISTRICT	LOCATION	ADDRESS
1	Miller Library	2901 Dixwell Ave
2	Booker T. Washington Academy	306 Circular Ave
3	Keefe Community Center	11 Pine St
4	Spring Glen School	1908 Whitney Ave
5	Board of Education Building	60 Putnam Ave
6	Ridge Hill School	120 Carew Rd
7	Dunbar Hill School	315 Lane St
8	Bear Path School	10 Kirk Rd
9	West Woods School	350 West Todd St

Early Voting will take place at Miller Library polling location. Same Day Registration only occurs for the General Election and will take place during Early Voting Dates at Miller Library polling location, and Hamden Senior Center on November 4, 2025.

The AB and EV ballots will be counted centrally at the Government Center, 2750 Dixwell Ave, Hamden CT, 3rd Floor Conference Room.

Head Moderator: Pete Vining 203-435-6898
Deputy Head Moderator: Anthony Santino 203-627-4861

PUBLIC NOTICE

Global New Haven Terminals LLC
500 Waterfront Street
New Haven, CT

Notice is hereby given that Global New Haven Terminals LLC (the "applicant") of 500 Waterfront Street, New Haven, CT 06517 will submit to the Department of Energy and Environmental Protection an application under Connecticut General Statutes Section 22a-174 for a permit to construct, install, enlarge, or establish an air contaminant source and to operate such air contaminant source regulated under the federal Clean Air Act. Specifically, the applicant proposes to apply for a New Source Review permit. The NSR permit application is to repermit existing Tank 123, which is an internal floating roof tank permitted as EU-28a in the Title V permit for the facility, for gasoline service. This tank is currently permitted for distillate service. The application also includes the addition of one gasoline loading arm for gasoline loading at the Global New Haven Terminals LLC truck loading rack. The proposed activity will take place at 500 Waterfront Street, New Haven, CT 06512. The proposed activity potentially will affect air resources. Interested persons may obtain copies of the application by visiting Global Partners website at www.globalp.com and entering "New Haven Permit Application" in the search bar. The application will also be available for inspection at the Department of Energy and Environmental Protection, Bureau of Air Management, Engineering & Enforcement Division, 79 Elm Street, 5th floor, Hartford, CT 06106-5127, 860-424-4152, from 8:30 to 4:30 Monday through Friday. Please call CT DEEP in advance to schedule review of the application.

TOWN OF HAMDEN PRIMARY

To Karimah Mickens, Primary of the Democratic Party will or nomination to the following Municipal Office on November 4, 2025:

Office
Mayor
Councilmen-At-Large
Councilman District 6
Councilman District 7
Councilman District 8
Councilman District 9

Notice is also hereby given that the Democratic Party for nomination to the following candidates:

Name	Address
Dominique Baez	56 E 2025 - 11/25/2029
Maurine Crouch	156 E 2025 - 11/28/2027
Douglas J Foley	11 E 2025 - 11/28/2027
Tasha Hunt	19 E 2025 - 11/28/2027
Katie Kiely	69 E 2025 - 11/28/2027
Renee Hoff	151 E 2025 - 11/28/2027
Adrian Webber	32 E 2025 - 11/28/2027
Ted Stevens	61 E 2025 - 11/28/2027
Tameeka Parks	108 E 2025 - 11/28/2027

Notice is also hereby given that the Democratic Party have filed petition(s) in conformity with the rules for nomination to said Municipal Offices:

Name	Address
Peter Cyr	74 E 2025 - 11/25/2029
Lushonda D. Howard	3 E 2025 - 11/25/2029
Walter L. Morton IV	380 E 2025 - 11/25/2029
Adam Sendroff	45 E 2025 - 11/25/2029
Delroy Crawford	97 S 2025 - 11/28/2027
Marion Regina Mullings	6 E 2025 - 11/28/2027
Grace Teodosio	51 E 2025 - 11/28/2027
Kathleen Muolo	431 E 2025 - 11/28/2027
James Baker	71 E 2025 - 11/28/2027
Barbara Walker	2 E 2025 - 11/28/2027

Dated at Hamden, Conn

Registrar of Voters of the

The foregoing is a copy, Deputy Registrar of Voters of the Democratic Party. As provided in said notice, a Primary to the offices therein specified will be held on November 4, 2025 from 6:00 a.m. to 8:00 p.m., and the

Voting District

1	Miller Library
2	Booker T. W
3	Keefe Com
4	Spring Glen
5	Board of Ed
6	Ridge Hill S
7	Dunbar Hill
8	Bear Path S
9	West Wood

Early Voting will take place at

Early Voting - Hours of
September 2, 2025 - 8:00
September 3, 2025 - 10:00
September 4, 2025 - 8:00
September 5, 2025 - 10:00
September 6, 2025 - 10:00
September 7, 2025 - 10:00

Absentee and Early Voting Government Center, 2750 Dixwell Ave, Hamden

Dated at Hamden, Connecticut
Municipal Clerk Karimah Mickens
Town of Hamden

State PROBATE NOTICES

The State of Connecticut, is seeking proposals for Teams. Diversion First is a program in Connecticut that provides formal processing in the juvenile court, and thus there are currently 35 companies operating. This RFP will res

NOTICE TO CREDITORS

ESTATE OF
Antley Layton, AKA
Antley R. Layton,
Antley Reber Layton
(25-0848)

PROBATE NOTICES

NOTICE TO CREDITORS

ESTATE OF
Bruce E. Heine (25-00338)

The Hon. Clifford P. Hoyle, Judge of the Court of Probate, District of Derby Probate Court, by decree dated July 24, 2025, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

Merissa Lawlor-Stine, Clerk

The fiduciary is:

Deborah Heine
aka Deborah S. Heine
c/o CHARLES D ROCKWELL,
CHARLES D. ROCKELL,
75 NEW HAVEN AVENUE,
SUITE 1,
MILFORD, CT 06460

NOTICE TO CREDITORS

ESTATE OF Edward F. Hirsch, III (25-00363)

The Hon. Michael Dolan, Judge of the Court of Probate, District of Hamden - Bethany Probate Court, by decree dated July 7, 2025, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

Christine L. Panzo,
Chief Clerk

The fiduciary is:

Marilyn Winter Hirsch
c/o MICHAEL DAVID SAFFER,
PELLEGRINO LAW FIRM,
475 WHITNEY AVENUE,
NEW HAVEN, CT 06511

NOTICE TO CREDITORS

ESTATE OF Dora Hale (25-00396)

The Hon. Michael Dolan, Judge of the Court of Probate, District of Hamden - Bethany Probate Court, by decree dated July 30, 2025, ordered that all claims must be presented to the fiduciary at the address below. Failure to promptly present any such claim may result in the loss of rights to recover on such claim.

Caron H. Mendillo,
Assistant Clerk

The fiduciary is:

Bernadette Puglisi
c/o THERESA IMPERATO
MADONNA,
LAW OFFICE OF
THERESA I. MADONNA, LLC,
110 MAIN STREET,
JEWETT CITY, CT 06351



Arts
& Leisure

 Connecticut Public Notices[→ Login/Register](#)

Public notice

Run Dates: **August 15 2025**

PUBLIC NOTICE Global New Haven Terminals LLC 500 Waterfront Street New Haven, CT Notice is hereby given that Global New Haven Terminals LLC (the "applicant") of 500 Waterfront Street, New Haven, CT 06517 will submit to the Department of Energy and Environmental Protection an application under Connecticut General Statutes Section 22a-174 for a permit to construct, install, enlarge, or establish an air contaminant source and to operate such air contaminant source regulated under the federal Clean Air Act. Specifically, the applicant proposes to apply for a New Source Review permit. The NSR permit application is to repermit existing Tank 123, which is an internal floating roof tank permitted as EU-28a in the Title V permit for the facility, for gasoline service. This tank is currently permitted for distillate service. The application also includes the addition of one gasoline loading arm for gasoline loading at the Global New Haven Terminals LLC truck loading rack. The proposed activity will take place at 500 Waterfront Street, New Haven, CT 06512. The proposed activity potentially will affect air resources. Interested persons may obtain copies of the application by visiting Global Partners website at www.globalp.com and entering "New Haven Permit Application" in the search bar. The application will also be available for inspection at the Department of Energy and Environmental Protection, Bureau of Air Management, Engineering & Enforcement Division, 79 Elm Street, 5th floor, Hartford, CT 06106-5127, 860-424-4152, from 8:30 to 4:30 Monday through Friday. Please call CT DEEP in advance to schedule review of the application.

[View less](#)

Uploaded August 15, 2025 9:50 AM

S. Dupee,
The Hon. Paul J.
ct of Bridgeport

August 15, 2025 9:50 AM

Public Notice - Global New Haven Terminals LLC

Global New Haven Terminals LLC
500 Waterfront Street
New Haven, CT

Notice is hereby given that Global New Haven Terminals LLC (the "applicant") of 500 Waterfront Street, New Haven, CT 06517 will submit to the Department of Energy and Environmental Protection an application under Connecticut General Statutes Section 22a-174 for a permit to construct, install, enlarge, or establish an air contaminant source and to operate such air contaminant source regulated under the federal Clean Air Act. Specifically, the applicant proposes to apply for a New Source Review permit. The NSR permit application is to repermit existing Tank 123, which is an internal floating roof tank permitted as EU-28a in the Title V permit for the facility, for gasoline service. This tank is currently permitted for distillate service. The application also includes the addition of one gasoline loading arm for gasoline loading at the Global New Haven Terminals LLC truck loading rack. The proposed activity will take place at 500 Waterfront Street, New Haven, CT 06512. The proposed activity potentially will affect air resources. Interested persons may obtain copies of the application by visiting Global Partners website at www.globalp.com and entering "New Haven Permit Application" in the search bar. The application will also be available for inspection at the Department of Energy and Environmental Protection, Bureau of Air Management, Engineering & Enforcement Division, 79 Elm Street, 5th floor, Hartford, CT 06106-5127, 860-424-4152, from 8:30 to 4:30 Monday through Friday.

Please call CT DEEP in advance to schedule review of the application.

From: [Drew Carlson](#)
To: [Michael Piscitelli](#)
Cc: [Steve Charron](#); pj@csgct.com; [Rachel Farnum](#)
Subject: Global - New Haven Public Notice
Date: Monday, August 18, 2025 1:35:46 PM
Attachments: [image001.png](#)
[Public Notice - Global New Haven NSR Application 8.14.25 \(005\).pdf](#)

Mr. Piscitelli,

Please find attached the public notice we intend to distribute regarding our permit application for our New Haven facility. In accordance with regulations, we are required to notify the chief elected official of the municipality.

Could you please confirm receipt of this notice?

We look forward to meeting with you again soon to discuss the next steps regarding the Community Benefit Agreement. In the meantime, please reach out if you have any questions.

Regards,

Drew

Drew Carlson
Vice President
Government & Community Affairs

Cell: 781-227-7417

800 South Street, Suite 500
Waltham, MA 02453



From: [Michael Piscitelli](#)
To: [Drew Carlson](#)
Cc: [Steve Charron](#); pj@csgct.com; [Rachel Farnum](#)
Subject: RE: Global - New Haven Public Notice
Date: Monday, August 18, 2025 4:58:23 PM
Attachments: [image001.png](#)

Thanks Drew, receipt confirmed. We are looking forward to talking as well and regret the delay.

From: Drew Carlson <Drew.Carlson@globalp.com>
Sent: Monday, August 18, 2025 1:36 PM
To: Michael Piscitelli <mpiscite@newhavenct.gov>
Cc: Steve Charron <SCharron@globalp.com>; pj@csgct.com; Rachel Farnum <rfarnum@envirospeceng.com>
Subject: Global - New Haven Public Notice

Please be cautious

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mr. Piscitelli,

Please find attached the public notice we intend to distribute regarding our permit application for our New Haven facility. In accordance with regulations, we are required to notify the chief elected official of the municipality.

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Regards,

Drew

Drew Carlson
Vice President
Government & Community Affairs

Cell: 781-227-7417

800 South Street, Suite 500
Waltham, MA 02453

GLOBAL PARTNERS
Putting Our Energy to Work

ATTACHMENT AA-1 PUBLIC HEARING RESPONSE TO
COMMENTS

(See Attachment R)