



November 17, 2020

Ms. Sheary Culp
NuStar Terminals Operations Partnership, LP
9280 W Stockton Blvd., Ste. 220
Elk Grove, CA 95758

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
Facility Number: N-829
Project Number: N-1181193

Dear Ms. Culp:

Enclosed for your review is the District's analysis of an application for Authorities to Construct for the facility identified above. You requested that Certificates of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. This project is to modify the bulk terminal to receive, store, and loadout ethanol fuel.

The notice of preliminary decision for this project has been posted on the District's website (www.valleyair.org). After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the District intends to issue the Authorities to Construct with Certificates of Conformity. Please submit your comments within the 30-day public comment period, as specified in the enclosed public notice. Prior to operating with modifications authorized by the Authorities to Construct, the facility must submit an application to modify the Title V permit as an administrative amendment, in accordance with District Rule 2520, Section 11.5.

If you have any questions, please contact Mr. Nick Peirce, Permit Services Manager, at (209) 557-6400.

Thank you for your cooperation in this matter.

Sincerely,


Arnaud Marjollet
Director of Permit Services

Enclosures

cc: Courtney Graham, CARB (w/enclosure) via email
cc: Gerardo C. Rios, EPA (w/enclosure) via EPS

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San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Modification of Bulk Terminal – Ethanol Services Expansion

Facility Name:	NuStar Terminals Operations Partnership, LP	Date:	November 16, 2020
Mailing Address:	9280 W Stockton Blvd., Ste. 220 Elk Grove, CA 95758	Engineer:	James Harader
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Application #(s):	N-829-1-10, -2-10, -16-8, 20-11, -21-6, -28-7, & -29-8		
Project #:	N-1181193		
Deemed Complete:	February 7, 2019		

I. Proposal

NuStar Terminals Operations Partnership, LP (hereinafter NuStar) is requesting Authorities to Construct (ATC) for the modification of the bulk terminal to receive, store, and loadout ethanol fuel. The draft ATCs are included in Appendix A. NuStar's proposal is detailed below:

Ethanol Receiving

NuStar will install a new 12" pipeline to transfer ethanol fuel from an incoming custody meter on an adjacent facility, ECO-Energy, LLC (hereinafter ECO-Energy) with Facility ID N-9579¹, to the existing storage tanks, under permit units N-829-28 and N-829-29 (with NuStar internal tank identification number of TK 80001 and TK 80002), respectively. The pipeline will be welded with flanges at connection points at the custody meter and at the tanks inlets.

Storage Tanks

N-829-16 (1,386,000 gallon internal floating roof tank², TK 3301)

- The current permit does not specify the type of organic material stored in this tank. NuStar has confirmed that this tank has historically been used for gasoline storage, and will continue to be used for gasoline storage.

¹ NuStar (N-829) and ECO-Energy (N-9549) are determined to be separate stationary source; see detail discussion at the end of the Proposal Section below.

² Per project N-1191261, the tank deck is a mechanically fastened (with screws and rivets) not welded, and has a slotted gauge pole that equipped with gasketed sliding cover, float sleeve, and wiper.

- The applicant is proposing to establish an annual organic liquid throughput limit of 252,000,000 gallons per year for this tank.
- The applicant is proposing to add the following fugitive components: 30 valves and 61 fittings.

N-829-21 (1,328,124 gallon internal floating roof tank, TK 3302)

- The current permit does not specify the type of organic material stored in this tank. NuStar confirms that this tank has historically been used for gasoline storage, and will continue to be used for gasoline storage.
- Pursuant to Section V of District Policy SSP 2015 (Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCMI Facilities), the fugitive components associated with this tank are considered to be a separate emission unit from the associated organic liquid storage tank, and NSR requirements are determined separately for the fugitive emission source and for the organic liquid storage tank. There are two emission units under permit N-829-21: organic liquid storage tank and fugitive components. The organic liquid storage tank permitted under N-829-21 is not being modified under this project and references made this tank should not be construed to imply the tank itself is being modified under this permitting action. Therefore, only the fugitive components will be evaluated under this project.
- The applicant is proposing to add the following fugitive components: 30 valves and 61 fittings.

N-829-28 (3,360,000 gallon domed external floating roof tank³, TK 80001)

- The current permit does not specify the type of organic material stored in this tank. NuStar confirms that this tank has historically been used for gasoline and denatured ethanol storage, and will continue to be used for gasoline and denatured ethanol storage.
- Pursuant to Section V of District Policy SSP 2015 (Procedures for Quantifying Fugitive VOC Emissions at Petroleum and SOCMI Facilities), the fugitive components associated with this tank are considered to be a separate emission unit from the associated organic liquid storage tank, and NSR requirements are determined separately for the fugitive emission source and for the organic liquid storage tank. There are two emission units under permit N-829-28: organic liquid storage tank and fugitive components. The organic liquid storage tank permitted under N-829-28 is not being modified under this project and references made this tank should not be construed to imply the tank itself is being modified under this permitting action. Therefore, only the fugitive components will be evaluated under this project.
- The applicant is proposing to add the following fugitive components: 30 valves and 61 fittings.

³ This external floating roof tank was installed prior to the District unification on 9/19/91. This tank was retrofitted to a domed external floating roof tank with a geodesic roof back in 1999, under project N-990475. The District misidentified this tank as an internal floating roof tank in the past, and the equipment description for this permit unit will be administratively corrected under this project, identifying the tank is a domed external floating roof tank.

N-829-29 (3,360,000 gallon external floating roof tank, TK 80002)

- The current permit does not specify the type of organic material stored in this tank. NuStar confirms that this tank has historically been used for gasoline and denatured ethanol storage, and will continue to be used for gasoline and denatured ethanol storage.
- The applicant is proposing to establish an annual organic liquid throughput limit of 258,000,000 gallons per year for this tank.
- The applicant is proposing to retrofit the tank with a domed external floating roof tank by installing a geodesic roof.
- The applicant is proposing to add the following fugitive components: 30 valves and 61 fittings.

Truck Loading Operation

The project will not involve adding new truck loading bays. However, additional pipelines and fugitive components will be installed to the existing truck loading racks for ethanol loading purposes.

N-829-1 and N-829-2 (North and South truck loading racks)

The applicant is proposing the following:

- To install 1 pump, 36 valves, and 116 fittings to the North rack, N-829-1 for supporting the ethanol loading service;
- To install 3 pumps, 21 valves, and 65 fittings to the South rack, N-829-2 for supporting the ethanol loading service;
- To install new pipeline connections from the piping manifold network associated with the storage tanks under permit units N-829-28 and N-829-29 to four new ethanol truck loading pumps, then to the North and South truck loading racks.

N-829-20 (Loading Rack Vapor Control Unit (VCU))

As part of this project, the applicant has proposed to lower the loading racks' VOC emission factor, which necessitates a revision of permit N-829-20 under which the VCU itself is permitted. In order to accurately quantify the emissions from N-829-1 and N-829-2, references will be made to N-829-20 throughout this document. However, the VCU permitted under N-829-20 is not being physically modified under this project and references made to this emission control device should not be construed to imply the emission control device itself is being modified under this permitting action. Therefore, the VCU itself will not be evaluated under this project.

- Lower controlled VOC EF from 0.08-lb-VOC/1,000 gallons to 0.015 lb-VOC/1,000 gallons.

Vapors from the organic liquid loading racks (permits N-829-1 and N-829-2) are captured and sent to the existing Vapor Combustion Unit (VCU) (permit unit N-829-20). The 2018 source test results showed VOC emissions from the loading racks served by the VCU are already meeting the proposed EF, so no physical changes to the VCU permit are necessary to achieve the proposed EF.

NuStar is proposing three separate renewable fuel projects:

- Project N1181193: NuStar is proposing to modify parts of their bulk fueling terminal to receive, store, and loadout ethanol. The ethanol will be received via pipeline from facility N-9579 (ECO-Energy, LLC).
- Project N1190868: NuStar is proposing to receive renewable diesel (RD) via marine vessels at Docks 10/11 at the Port of Stockton, store RD in existing floating roof tanks, and loadout RD via the existing loading racks.
- Project N1192323: NuStar is proposing to receive renewable diesel (RD) via railcars at the Port of Stockton, store RD in existing floating roof tanks, and loadout RD via the existing loading racks.

NuStar possesses a Title V Permit. The proposed project triggers a Federal Major Modification, so this permitting action is classified as a Title V significant modification pursuant to Rule 2520, and can be processed with a Certificate of Conformity (COC). Since the facility has specifically requested that this project be processed in that manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct permits. NuStar must apply to administratively amend their Title V permit.

Stationary Source Determination: NuStar Terminal (N-829) and ECO-Energy, LLC (N-9579)

Pursuant to Section 3.39 of District Rule 2201, a stationary source is any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. Building, structure, facility or installation includes all pollutant emitting activities including emissions units which:

- 3.39.1 Are under the same or common ownership or operation, or which are owned or operated by entities which are under common control; **and**
- 3.39.2 Belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial classification code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw materials; **and**
- 3.39.3 Are located on one or more contiguous or adjacent properties; **or**

- 3.39.4 Are located on one or more properties wholly within either the Western Kern County Oil Fields or the Central Kern County Oil Fields or Fresno County Oil Fields and are used for the production of light oil, heavy oil or gas. Notwithstanding the provisions of this definition, light oil production, heavy oil production, and gas production shall constitute separate Stationary Sources.

Applicability Determination

Section 3.39.1

- Are under the same or common ownership or operation, or which are owned or operated by entities which are under common control

The United States Environmental Protection Agency (EPA) recently published a Source Determinations Guidance Document (4/30/18) clarifying the “common control” interpretation in “source determinations” for Title V or New Source Review (NSR) permitting purposes. A copy of EPA guidance document is included in Appendix C.

This latest guidance document concluded that the assessment of “control” for Title V and NSR permitting purposes should focus on “***the power or authority over operations relevant to air pollution, and specifically control over such operations that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements***”.

NuStar has a business contract to receive ethanol fuel from the adjacent ECO-Energy facility. ECO-Energy receives the ethanol by rail and transfers it to the NuStar facility via a pipeline. A custody meter will be installed at the boundary separating the NuStar and ECO-Energy facilities. NuStar and ECO-Energy are two different entities, each of which operates its own equipment and has autonomy with respect to its own permitting obligations. NuStar has no power or authority over ECO-Energy’s decisions on equipment selection or its operations that could affect the applicability of, or compliance with, permitting requirements. Likewise, ECO-Energy has no power or authority over NuStar’s decisions on equipment selection or its operations that could affect the applicability of, or compliance with, permitting requirements.

In addition, EPA’s guidance document also clarifies that a ***dependency relationship should not be presumed to result in common control***. Therefore, NuStar and ECO-Energy do not meet the requirements of this section to be considered the same stationary source.

Section 3.39.2

- Belong to the same industrial grouping either by virtue of falling within the same two-digit standard industrial classification code or by virtue of being part of a common industrial process, manufacturing process, or connected process involving a common raw materials

NuStar and ECO-Energy belong to the same two-digit standard industrial classification code. In addition, the receiving and transloading of ethanol fuel, and the storage, blending, and loadout the ethanol fuel are a connected process. Therefore, NuStar and ECO-Energy meet the requirements of this section to be considered the same stationary source.

Section 3.39.3

- Are located on one or more contiguous or adjacent properties

NuStar and ECO-Energy are located adjacent to each other on properties that share a common boundary. Therefore, NuStar and ECO-Energy meet the requirements of this section to be considered the same stationary source.

Section 3.39.4

- Are located on one or more properties wholly within either the Western Kern County Oil Fields or the Central Kern County Oil Fields or Fresno County Oil Fields and are used for the production of light oil, heavy oil or gas. Notwithstanding the provisions of this definition, light oil production, heavy oil production, and gas production shall constitute separate Stationary Sources

NuStar and ECO-Energy are not located within the Western Kern County Oil Fields, the Central Kern County Oil Fields, or Fresno County Oil Fields, and neither NuStar nor ECO-Energy produces light oil, heavy oil or gas. Therefore, NuStar and ECO-Energy do not meet the requirements of this section to be considered the same stationary source.

In conclusion, NuStar and ECO-Energy do not meet the requirements of section 3.39.1 of Rule 2201, and therefore, are considered to be separate stationary sources.

II. Applicable Rules

Rule 1100	Equipment Breakdown (12/17/92)
Rule 2201	New and Modified Stationary Source Review Rule (8/15/19)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (8/15/19)
Rule 4001	New Source Performance Standards (4/14/99)
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4623	Storage of Organic Liquids (5/19/05)
Rule 4624	Transfer of Organic Liquids (12/20/07)
CH&SC 41700	Health Risk Assessment
CH&SC 42301.6	School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)	
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines	

III. Project Location

The facility is located at 2941 Navy Drive in Stockton, CA. The equipment is not located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

NuStar operates a terminal facility for gasoline, diesel, biodiesel, ethanol, and aviation gasoline at the Port of Stockton. The terminal provides storage, blending, and truck, rail and pipeline transportation. The terminal has 33 tanks with a total capacity of 878,000 barrels. The terminal has eight truck loading bays with automated additive injection systems. NuStar is proposing to receive ethanol from an adjacent facility via a pipeline and store it in two existing storage tanks, under permit units N-829-28 and '-29. NuStar will load out the ethanol to tank trucks via the existing loading racks, under permit units N-829-1 and '-2.

V. Equipment Listing

Pre-Project Equipment Description:

The current PTOs are included in Appendix B.

- N-829-1-9: FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, AND 1 BIODIESEL LOADING ARM, A BIODIESEL LOADING PUMP, AND A 2-STREAM BLEND SKID
- N-829-2-9: FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A BIODIESEL LOADING PUMP, A 4-STREAM BLEND SKID, AND A BIODIESEL TRUCK OFF-LOADING PUMP
- N-829-16-10: 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL
- N-829-20-9: VAPOR COMBUSTION SYSTEM CONSISTING OF A 300,000 GALLON VAPOR HOLDING TANK, A VAPOR PROCESSING AND CONVEYING SYSTEM, AND A 40 MMBTU/HR PROPANE FIRED JOHN ZINK ZCT-2-8-35-X-2/8-X VAPOR COMBUSTION UNIT (VCU)
- N-829-21-5: 1,328,124 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#3302) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

- N-829-28-6: 3,360,000 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#80001) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE
- N-829-29-7: 3,360,000 GALLON WELDED EXTERNAL FLOATING ROOF STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

Proposed Modification:

- N-829-1-10: MODIFICATION OF FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, AND 1 BIODIESEL LOADING ARM, A BIODIESEL LOADING PUMP, AND A 2-STREAM BLEND SKID: INSTALL 1 ETHANOL LOADING PUMP, FUGITIVE COMPONENTS, AND ASSOCIATED PIPELINES.
- N-829-2-10: MODIFICATION OF FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A BIODIESEL LOADING PUMP, A 4-STREAM BLEND SKID, AND A BIODIESEL TRUCK OFF-LOADING PUMP: INSTALL 3 ETHANOL LOADING PUMPS, FUGITIVE COMPONENTS, AND ASSOCIATED PIPELINES.
- N-829-16-8: MODIFICATION OF 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED GASOLINE STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL: INSTALL FUGITIVE COMPONENTS AND ESTABLISH AN ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 252,000,000 GALLONS
- N-829-20-11: MODIFICATION OF VAPOR COMBUSTION SYSTEM CONSISTING OF A 300,000 GALLON VAPOR HOLDING TANK, A VAPOR PROCESSING AND CONVEYING SYSTEM, AND A 40 MMBTU/HR PROPANE FIRED JOHN ZINK ZCT-2-8-35-X-2/8-X VAPOR COMBUSTION UNIT (VCU): REDUCE LOADING RACK VOC EF TO 0.015 lb/1,000 GALLONS
- N-829-21-6: MODIFICATION OF 1,328,124 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#3302) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: INSTALL FUGITIVE COMPONENTS
- N-829-28-7: MODIFICATION OF 3,360,000 GALLON WELDED DOMED EXTERNAL FLOATING ROOF STORAGE TANK (#80001) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: INSTALL FUGITIVE COMPONENTS

N-829-29-8: MODIFICATION OF 3,360,000 GALLON WELDED EXTERNAL FLOATING ROOF STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: INSTALL FUGITIVE COMPONENTS; ESTABLISH AN ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 258,000,000 GALLONS; AND INSTALL A GEODESIC DOMED ROOF.

Post-Project Equipment Description:

N-829-1-10: FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE/ETHANOL LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, 1 BIODIESEL LOADING ARM, AND A 2-STREAM BLEND SKID FOR BIODIESEL SERVICE.

N-829-2-10: FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE/ETHANOL LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A 4-STREAM BLEND SKID FOR BIODIESEL SERVICE, AND A BIODIESEL TRUCK OFF-LOADING PUMP.

N-829-16-8: 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED GASOLINE, STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL

N-829-20-11: VAPOR COMBUSTION SYSTEM CONSISTING OF A 300,000 GALLON VAPOR HOLDING TANK, A VAPOR PROCESSING AND CONVEYING SYSTEM, AND A 40 MMBTU/HR PROPANE FIRED JOHN ZINK ZCT-2-8-35-X-2/8-X VAPOR COMBUSTION UNIT (VCU)

N-829-21-6: 1,328,124 GALLON WELDED INTERNAL FLOATING ROOF GASOLINE, STORAGE TANK (#3302) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

N-829-28-7: 3,360,000 GALLON WELDED DOMED EXTERNAL FLOATING ROOF GASOLINE AND DENATURED ETHANOL STORAGE TANK (#80001) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

N-829-29-8: 3,360,000 GALLON WELDED DOMED EXTERNAL FLOATING ROOF GASOLINE AND DENATURED ETHANOL STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

VI. Emission Control Technology Evaluation

Each storage tank associated with this project is equipped with a floating roof and mechanical shoe primary seal and wiper secondary seal to reduce VOC emissions. A domed external floating roof tank and a covered internal floating roof tank with these types of seals is expected to control more than 95% of VOC emissions compared to an uncontrolled storage tank. Only fugitive VOC emissions are expected from each tank's piping components, such as flanges, valves, connectors, and compressor seals. Fugitive VOC emissions from tank piping components are minimized through best management practices.

Ethanol is received from pipeline to the facility storage tanks, and then loaded into an empty cargo tanker trucks via both North and South loading racks. The displaced organic vapor inside the empty tanker truck is vented through the loading rack vapor line back to the existing vapor combustion unit (VCU). Currently, VOC emissions from both loading racks, under permit units N-829-1 and N-829-2 are vented to an existing shared VCU permitted under N-829-20 that has a minimum permitted control efficiency of 99% for VOC. The VCU capture and control system itself is not being physically modified under this project; rather, the loading rack controlled VOC emissions factor is merely being lowered to a value that the system is currently in compliance with.

VII. General Calculations

A. Assumptions

- VOC is the only criteria pollutant emitted from the units being modified under this project.
- Only fugitive VOC is emitted from the components such as pumps, flanges, valves, connectors, seals, and other piping components (per applicant).
- Emissions from the tanks will be calculated using Tanks 4.09d using gasoline, which results in the worst-case emission rates for the materials that may be stored in the tanks.
- The daily and annual fugitives emissions from the associated piping components are determined using Marketing Terminal Average Emissions Factors of Table IV-1b listed in CAPCOA document, "*California Implementation Guidelines for Estimating Mass Emission of Fugitive Hydrocarbon leaks at Petroleum Facilities, 1999*" (February 1999).
- The applicant is not proposing to modify the organic liquid loading racks' combined daily and annual throughputs of 2,071,233 gallons per day and 756,000,000 gallons per year, for permit units N-829-1 and N-829-2 (per applicant).
- The facility's NO_x emissions are contributed from a single permit unit N-829-20, a 40 MMBtu/hr vapor combustion unit, which a VOC emissions control device serving the loading racks permitted under N-829-1 and N-829-2. No physical modification or change in method of operation is necessary to lower the loading rack VOC EF as proposed under this project. Therefore, this project does not affect NO_x emissions, so NO_x emissions from the VCU will not be evaluated under this project.

B. Emission Factors

Loading Racks

Emissions from the organic liquids loading operation include the following three sources of emissions: a) captured loading losses that vent to the VCU; b) disconnection emissions; and c) fugitive emissions from the components.

N-829-1, N-829-2, and VCU (N-829-20)

Each loading rack is served by a shared vapor control unit (VCU) that is permitted separately under N-829-20. The VCU is not an emission unit; rather it is a VOC emissions control device serving the two existing loading racks. The VCU capture and control system is not being physically modified in this project; rather, the loading rack controlled VOC emissions factor is merely being lowered to a value that the system is currently in compliance with.

Controlled Loading Rack Emissions from the VCU:

The currently permitted VOC emission factor for the loading racks is:

$$EF_{1\text{Controlled}} = 0.08 \text{ lb-VOC/1,000 gallon organic liquid transferred}$$

The applicant proposed the following VOC emission factor for the loading racks.

$$EF_{2\text{Controlled}} = 0.015 \text{ lb-VOC/1,000 gallon organic liquid transferred}$$

Disconnection Emissions from loading racks:

During organic liquids loading, VOC emissions will be accounted for due to liquid spillage during connection and disconnection between the tank truck and the loading rack.

Based on the current equipment utilized at this terminal, NuStar proposes an emission factor of 8 milliliters-VOC per disconnect be used to quantify disconnect VOC emissions from the loading processes. Per provided information, the worst-case density of organic liquid process at this terminal is 6.76 lb/gal. Assuming that all of the liquid spilled evaporates as VOC's, the VOC emission factor per disconnection can be calculated as follows:

$$EF_{\text{Disconnection}} = (8 \text{ mL-VOC/disconnect}) \times (6.76 \text{ lb/gal}) \times (1 \text{ gal}/3,785.41 \text{ mL})$$

$$EF_{\text{Disconnection}} = 0.0143 \text{ lb-VOC/disconnect}$$

Fugitive Emissions from loading racks:

Fugitive VOC emissions from the valves, flanges, compressor seals etc. will be determined using Marketing Terminal Average Emissions Factors of Table IV-1b listed in CAPCOA document, "California Implementation Guidelines for Estimating Mass Emission of Fugitive Hydrocarbon leaks at Petroleum Facilities, 1999" (February 1999). The total hydrocarbons

(THC) emission factors reported in this Table IV-1b are assumed to be VOC when calculating the fugitive VOC emissions.

Component Type	Source Type	VOC EF (kg/hr/source)	VOC EF (lb/hr/source)
Valves	Gas	1.3E-05	2.87E-05
	Light Liquid	4.3E-05	9.48E-05
Pump Seals	Gas	6.5E-05	1.43E-04
	Light Liquid	5.4E-04	1.19E-03
Others (compressors and others)	Gas	1.2E-04	2.65E-04
	Light Liquid	1.3E-04	2.87E-04
Fittings (connectors and flanges)	Gas	4.2E-05	9.26E-05
	Light Liquid	8.0E-06	1.76E-05

Storage Tanks

N-829-16, N-829-21, N-829-28, & N-829-29

The VOC emissions from these floating roof storage tanks will be calculated using EPA's Tanks 4.09d software program. Therefore, a separate emission factor for the tanks is not necessary.

Fugitive Emissions:

Fugitive VOC emissions from the valves, flanges, compressor seals etc. will be determined using Marketing Terminal Average Emissions Factors of Table IV-1b listed in CAPCOA document, "California Implementation Guidelines for Estimating Mass Emission of Fugitive Hydrocarbon leaks at Petroleum Facilities, 1999" (February 1999). The total hydrocarbons (THC) emission factors reported in this Table IV-1b are assumed to be VOC when calculating the fugitive VOC emissions.

Component Type	Source Type	VOC EF (kg/hr/source)	VOC EF (lb/hr/source)
Valves	Gas	1.3E-05	2.87E-05
	Light Liquid	4.3E-05	9.48E-05
Pump Seals	Gas	6.5E-05	1.43E-04
	Light Liquid	5.4E-04	1.19E-03
Others (compressors and others)	Gas	1.2E-04	2.65E-04
	Light Liquid	1.3E-04	2.87E-04
Fittings (connectors and flanges)	Gas	4.2E-05	9.26E-05
	Light Liquid	8.0E-06	1.76E-05

Note: Maintenance activities such as tank roof landings and tank cleaning are exempt from permit requirements per Section 7.3 of District Rule 2020; as such, emissions from these maintenance activities are not included in this evaluation.

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Loading Racks

Emissions from the loading rack are vented to the VCU under permit unit N-829-20. As discussed in the emission factor section above, emissions from the loading process are comprised of three areas: loading emissions, disconnection emissions, and fugitive emissions.

$$PE_{\text{Loading Process Emissions}} = PE_{\text{Loading Rack}} + PE_{\text{Disconnected}} + PE_{\text{Fugitive}}$$

The loading racks have combined daily and annual throughputs of 2,071,233 gallons in any single day and 756,000,000 gallons in any one calendar year, respectively.

Controlled Loading Rack Emissions from the VCU:

VOC emissions from the VCU are currently limited to 0.08 pounds per 1,000 gallons of organic liquid loaded. The combined daily throughputs of both loading racks are limited to 2,071,233 gallons per day, and the combined annual throughput of both loading racks are limited to 756,000,000 gallons per year. The daily and annual emissions from the VCU are:

$$\begin{aligned} \text{Daily PE1} &= 0.08 \text{ lb-VOC/1,000 gal} \times 2,071,233 \text{ gal/day} = 165.7 \text{ lb-VOC/day} \\ \text{Annual PE1} &= 0.08 \text{ lb-VOC/1,000 gal} \times 756,000,000 \text{ gal/yr} = 60,480 \text{ lb-VOC/yr} \end{aligned}$$

Disconnection emissions from loading racks:

Per applicant, the maximum daily and annual loadout events for both loading racks combined are 259 events per day and 94,500 events per year, the number of disconnect per each loadout event is 8 disconnects per loading event, and the worst-case density of organic liquid loaded through the loading rack is 6.76 pounds per gallon. The daily and annual disconnection emissions are calculated as follows:

$$\begin{aligned} \text{Daily PE1}_{\text{Disconnect}} &= 8 \text{ mL/disconnect} \times 259 \text{ event/day} \times 8 \text{ disconnect/event} \times 1 \\ &\quad \text{gal/3785.41 mL} \times 6.76 \text{ lb/gal} \\ &= 29.6 \text{ lb-VOC/day} \end{aligned}$$

$$\begin{aligned} \text{Annual PE1}_{\text{Disconnect}} &= 8 \text{ mL/disconnect} \times 94,500 \text{ event/year} \times 8 \text{ disconnect/event} \times 1 \\ &\quad \text{gal/3785.41 mL} \times 6.76 \text{ lb/gal} \\ &= 10,801 \text{ lb-VOC/yr} \end{aligned}$$

Fugitive Emissions from loading racks:

Per applicant, the existing loading racks have the following components (both loading racks shared with six pumps, so three pumps are counted to each rack for emissions calculations purpose) that contribute fugitive emissions:

N-829-1 (North Rack): 145 valves, 3 pumps and 480 fittings (connectors and flanges)

N-829-2 (South Rack): 179 valves, 3 pumps and 562 fittings (connectors and flanges)

The pre-project fugitive emissions from these components are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE1} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

N-829-1

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	145	0.33
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	3	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	480	0.20
Total				0.6 (0.56)

$$\begin{aligned} \text{Annual PE1} &= \text{Daily PE1} \times 365 \text{ day/yr} \\ &= 0.56 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 204 \text{ lb-VOC/yr} \end{aligned}$$

N-829-2

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	179	0.41
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	3	0.09
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	562	0.24
Total				0.7 (0.74)

$$\begin{aligned} \text{Annual PE1} &= \text{Daily PE1} \times 365 \text{ day/yr} \\ &= 0.74 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 270 \text{ lb-VOC/yr} \end{aligned}$$

Total Loading Racks Emissions (N-829-1, N-829-2, and VCU (N-829-20)):

	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Controlled Loading Emissions (VCU)	165.7	60,480
Disconnection Emissions	29.6	10,801
Fugitive Emissions	1.3 (0.6 + 0.7)	474 (204 + 270)
Total	196.6	71,755

Storage Tanks

N-829-16 (1,386,000 gallon internal floating roof storage tank, TK 3301)

Per information in projects N-1060769 and N-1191261, and current permit, the monthly and annual throughputs of this tank are 2,772,000 gal/month (equivalent to 2 tank turnovers/month) and 33,264,000 gal/year (equivalent to 24 tank turnovers/year), respectively.

The pre-project daily and annual potential emissions are determined by using EPA'S TANKS 4.0.9d program along with above tank turnover rates (see emissions reports in Appendix D1 of this document). From the emissions reports, the highest monthly VOCs emissions occur in July, so this month is used to quantify the daily emissions from this tank.

Per applicant, this tank has been used for storage of only gasoline. The following table summarized the tank emissions (see emissions calculations in Appendix D1a of this document).

Tank Emissions		
Material	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Gasoline	11.1	1,127

Example calculations of tank emissions and fugitive components emissions are listed below.

Standing Loss:

The standing losses are calculated as follows:

$$\begin{aligned}
 \text{Standing Loss} &= \text{Rim Seal Loss} + \text{Deck Fitting Loss} \\
 &= 59.65 \text{ lb/month} + 48.18 \text{ lb/month} + 0 \text{ lb/month} \\
 &= 107.83 \text{ lb/month}
 \end{aligned}$$

Given that the standing losses occur each day, the potential daily emission is calculated:

$$\begin{aligned}\text{Standing Loss} &= 107.83 \text{ lb-VOC/month} \div 31 \text{ day/month of July} \\ &= 3.5 \text{ lb-VOC/day}\end{aligned}$$

Withdrawal Loss:

The withdrawal losses occur on the days the proposed tank is loaded. The monthly turnover rate of this tank is 2 turnovers. Therefore, the withdrawal loss per turnover during the March is calculated:

$$\begin{aligned}\text{Withdrawal Loss} &= 7.47 \text{ lb-VOC/month} \div 2 \text{ turnover/month} \\ &= 3.7 \text{ lb-VOC/turnover}\end{aligned}$$

Per information provided under this project, the existing pump serving this tank is rated at 189,000 gal/hour, with the tank capacity of 1,386,000 gallons, the maximum daily turnover rate for this tank is 3.27 turnovers ($189,000 \text{ gal/hr} \times 24 \text{ hr/day} \div 1,386,000 \text{ gal}$). However, the monthly turnover rate for this tank is limited to 2 turnovers, so the maximum daily turnover rate of this tank is set equal to the monthly turnover rate of 2 turnovers, the daily withdrawal loss is calculated:

$$\begin{aligned}\text{Withdrawal Loss} &= 3.7 \text{ lb-VOC/turnover} \times 2 \text{ turnover/day} \\ &= 7.4 \text{ lb-VOC/day}\end{aligned}$$

The daily potential emission from the storage tank is calculated:

$$\begin{aligned}\text{Daily PE1} &= \text{Standing Loss} + \text{Withdrawal Loss} \\ &= 3.7 \text{ lb-VOC/day} + 7.4 \text{ lb-VOC/day} \\ &= 11.1 \text{ lb-VOC/day}\end{aligned}$$

The annual potential emission from this storage tank is determined by using EPA's TANKS 4.09d program, which is 1,127 lb-VOC/year.

Fugitive Emissions:

Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE1} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	5	0.01
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	48	0.02
Total				0.1 (0.06)

Annual PE1 = Daily PE x 365 day/yr
= 0.06 lb-VOC/day x 365 day/yr = 22 lb-VOC/year

Total PE1

N-829-16-10	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Tank	11.1	1,127
Components	0.1	22
Total	11.2	1,149

N-829-21 (1,328,124 gallon internal floating roof storage tank, TK 3302)

Per information provided under this project, the existing pump serving this tank is rated at 90,000 gal/hour, with the tank capacity of 1,328,124 gal, the maximum daily and monthly turnover rates of this tank are calculated to 1.63 turnover/day (90,000 gal/hr x 24 hr/day ÷ 1,328,124 gal), and 48.79 turnover/month (90,000 gal/hr x 24 hr/day x 30 day of April/month ÷ 1,328,124 gal), respectively.

The pre-project daily and annual potential emissions are determined by using EPA'S TANKS 4.0.9d program with these tank turnover rates (see emissions reports in Appendix D1 of this document). From the emissions reports, the highest monthly VOCs emission occur in April, so this month is used to quantify the daily emissions from this tank.

Per applicant, this tank has been used for storage of gasoline and denatured ethanol. The following table summarized the tank emissions from the storage of these materials (see detailed emissions calculations in Appendix D1a of this document). Since gasoline storage represents the highest emissions scenario, it will be used to quantify the worst case emissions from this tank.

Tank Emissions		
Material	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Gasoline	17.0	4,772

Fugitive Emissions:

Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE1} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	10	0.02
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	45	0.02
Total				0.1 (0.07)

$$\begin{aligned} \text{Annual PE1} &= \text{Daily PE} \times 365 \text{ day/yr} \\ &= 0.07 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 26 \text{ lb-VOC/year} \end{aligned}$$

Total PE1 (worst-case scenario)

N-829-21-5	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Tank	17.0	4,772
Components	0.1	26
Total	17.1	4,798

N-829-28 (3,360,000 gallon domed external floating roof tank, TK 80001)

Per information provided under this project, the existing pump serving this tank is rated at 90,000 gal/hour, with the tank capacity of 3,360,000 gal, the maximum daily and monthly turnover rates for this tank are calculated to 0.64 turnover/day (90,000 gal/hr x 24 hr/day ÷ 3,360,000 gal), and 19.29 turnover/month (90,000 gal/hr x 24 hr/day x 30 day of April/month ÷ 3,360,000 gal), respectively.

The pre-project daily and annual potential emissions are determined by using EPA's TANKS 4.0.9d program with these turnover rates (see emissions reports in Appendix D1

of this document). From the emissions reports, the highest monthly VOCs emissions occur in April, so this month is used to quantify the daily emissions from this tank.

Per applicant, this tank has been used for storage of gasoline and denatured ethanol. The following table summarized the tank emissions from the storage of these materials (see detailed emissions calculations in Appendix D1a of this document). Since gasoline storage represents the highest emissions scenario, it will be used to quantify the worst case emissions from this tank.

Tank Emissions		
Material	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Gasoline	9.2	2,652

Fugitive Emissions:

Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	27	0.06
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	48	0.02
Total				0.1 (0.11)

$$\begin{aligned} \text{Annual PE1} &= \text{Daily PE} \times 365 \text{ day/yr} \\ &= 0.11 \text{ lb-VOC/day} \times 365 \text{ day/yr} &= 40 \text{ lb-VOC/year} \end{aligned}$$

Total PE1 (worst case scenario)

N-829-28-6	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Tank	9.2	2,652
Components	0.1	40
Total	9.3	2,692

N-829-29 (3,360,000 gallon external floating roof tank, TK 80002)

Per information provided under this project, the existing pump serving this tank is rated at 189,000 gal/hour, with the tank capacity of 3,360,000 gal, the maximum daily and monthly turnover rates for this tank are calculated to 1.35 turnover/day (189,000 gal/hr x 24 hr/day ÷ 3,360,000 gal), and 40.5 turnover/month (189,000 gal/hr x 24 hr/day x 30 day of April/month ÷ 3,360,000 gal), respectively.

The pre-project daily and annual potential emissions are determined by using EPA'S TANKS 4.0.9d program with these tank turnover rates (see emissions reports in Appendix D1 of this document). From the emissions reports, the highest monthly VOCs emissions occur in June, so this month is used to quantify the daily emissions from this tank.

Per applicant, this tank has been used for storage of gasoline and denatured ethanol. The following table summarized the tank emissions from the storage of gasoline (see detailed emissions calculations in Appendix D1a of this document), which results in worst-case emissions from the tank.

Tank Emissions		
Material	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Gasoline	57.4	15,769

Fugitive Emissions:

Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	13	0.03
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	42	0.02
Total				0.1 (0.08)

$$\begin{aligned}
 \text{Annual PE1} &= \text{Daily PE} \times 365 \text{ day/yr} \\
 &= 0.08 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 29 \text{ lb-VOC/year}
 \end{aligned}$$

Total PE1 (worst case scenario)

N-829-29-7	Daily PE1 (lb-VOC/day)	Annual PE1 (lb-VOC/year)
Tank	57.4	15,769
Components	0.1	29
Total	57.5	15,798

2. Post Project Potential to Emit (PE2)

N-829-1-10 and N-829-2-10

NUStar is only proposing to install new fugitive components to the loading racks and to lower the VOC emission factor for the loading racks. NuStar is not proposing to change the current combined gasoline throughput limits of 2,071,233 gallons per day and 756,000,000 gallons per year for both loading racks under this project. The vapor pressure of gasoline is greater than any other fuels (ethanol, regular diesel, and biodiesel fuels) handled in the terminal; therefore, processing gasoline will always result in the highest amount of emissions as opposed to the other fuels.

The worst-case pre-project potential emissions calculated in previous section are based on the gasoline service. Except fugitive emissions from additional components for ethanol service, the processing of ethanol products is not expected to cause additional emissions from the organic liquid loading operations. The applicant is not proposing any change to the current combined daily and annual loadout events of 259 events per day and 94,500 events per year, and the number of disconnect per each loadout event of 8 disconnects per loading event, for both loading racks.

Controlled Loading Rack Emissions from the VCU:

In addition, the applicant proposed to lower the loading racks' VOC emission factor to 0.015 lb-VOC/1,000 gallon organic liquid transferred.

$$\begin{aligned}\text{Daily PE2} &= 0.015 \text{ lb-VOC/1,000 gal} \times 2,071,233 \text{ gal/day} = 31.1 \text{ lb-VOC/day} \\ \text{Annual PE2} &= 0.015 \text{ lb-VOC/1,000 gal} \times 756,000,000 \text{ gal/yr} = 11,340 \text{ lb-VOC/yr}\end{aligned}$$

Disconnection emissions from loading racks:

Since the applicant is not proposing any change to the current combined daily and annual loadout events of 259 events per day and 94,500 events per year, and the number of disconnect per each loadout event of 8 disconnects per loading event, for both loading racks, PE2 is equal to PE1 for disconnection emissions.

$$\text{PE2}_{\text{Disconnect}} = 29.6 \text{ lb-VOC/day and } 10,801 \text{ lb-VOC/yr}$$

Fugitive emissions from loading racks:

NuStar is proposing to add the following fugitive components to the loading racks for ethanol service:

North Rack: 1 pumps, 36 valves, and 116 fittings (connectors and flanges)
South Rack: 3 pumps, 21 valves, and 65 fittings (connectors and flanges).

The post-project fugitive components are:

N-829-1-10 (North Rack): 181 valves (145 + 36), 4 pumps (3 + 1) and 596 fittings (480 + 116) (connectors and flanges)
N-829-2-10 (South Rack): 200 valves (179 + 21), 6 pumps (3 + 3) and 627 fittings (562 + 65) (connectors and flanges)

The post-project fugitive emissions from these components are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

N-829-1-10

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE2 (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	181	0.41
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	4	0.11
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	596	0.25
Total				0.8 (0.77)

$$\begin{aligned}
 \text{Annual PE2} &= \text{Daily PE2} \times 365 \text{ day/yr} \\
 &= 0.77 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 281 \text{ lb-VOC/yr}
 \end{aligned}$$

N-829-2-10

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE2 (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	200	0.46
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	6	0.17
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	627	0.26
Total				0.9 (0.89)

$$\begin{aligned}
 \text{Annual PE2} &= \text{Daily PE2} \times 365 \text{ day/yr} \\
 &= 0.89 \text{ lb-VOC/day} \times 365 \text{ day/yr} = 325 \text{ lb-VOC/yr}
 \end{aligned}$$

Total Loading Rack Emissions (N-829-1, N-829-2, VCU (N-829-20)):

	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Controlled Loading Emissions (VCU)	31.1	11,340
Disconnection Emissions	29.6	10,801
Fugitive Emissions	1.7 (0.8 + 0.9)	606 (281 + 325)
Total	62.4	22,747

Storage Tanks

N-829-16 (1,386,000 gallon internal floating roof storage tank, TK 3301)

Tank Emissions

The applicant is proposing increase the organic liquid throughput limit for this tank to 252,000,000 gallons/year.

Per information provided under this project, the new pump serving this tank is rated at 210,000 gal/hour, with the tank capacity of 1,386,000 gal, the maximum daily and monthly turnover rates for this tank are calculated to 3.63 turnover/day (210,000 gal/hr x 24 hr/day ÷ 1,386,000 gal), and 109.09 turnover/month (210,000 gal/hr x 24 hr/day x 30 day of April/month ÷ 1,386,000 gal), respectively.

The post-project daily and annual potential emissions are determined by using EPA'S TANKS 4.0.9d program with above tank turnover values (see emissions reports in Appendix D2 of this document). From the emissions reports, the highest monthly VOCs emissions occur in July, so this month is used to quantify the daily emissions from this tank.

This tank will continue to be used for gasoline storage. The following table summarized the tank emissions (see detailed emissions calculations in Appendix D2 of this document).

Tank Emissions		
Material	Daily PE2 (lb-VOC/day)	Annual PE (lb-VOC/year)
Gasoline	17.1	1,697

Fugitive Emissions:

The applicant proposed to add the following fugitive components: 30 valves and 61 fittings. The total fugitive components is: 35 valves (5 + 30), 1 pump (1 + 0) and 109 fittings (48 + 61). Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE2} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	35	0.08
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	109	0.05
Total				0.2 (0.16)

Annual PE2 = Daily PE x 365 day/yr
= 0.16 lb-VOC/day x 365 day/yr = 58 lb-VOC/year

Total PE2

N-829-16-8	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Tank	17.1	1,697
Components	0.2	58
Total	17.3	1,755

N-829-21 (1,328,124 gallon internal floating roof storage tank, TK 3302)

Tank Emissions

This tank is not being modified; therefore, PE2 for the tank is equal to PE1 for this tank.

Fugitive Emissions:

The applicant proposed to add the following fugitive components: 30 valves and 61 fittings. The total fugitive components is: 40 valves (10 + 30), 1 pump (1 + 0) and 106 fittings (45 + 61). Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

Daily PE = VOC (lb/hr/source) x Component Count x 24 hr/day

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE2 (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	40	0.09
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	106	0.04
Total				0.2 (0.16)

$$\begin{aligned}\text{Annual PE2} &= \text{Daily PE} \times 365 \text{ day/yr} \\ &= 0.16 \text{ lb-VOC/day} \times 365 \text{ day/yr} &= 58 \text{ lb-VOC/year}\end{aligned}$$

Total PE2

N-829-21-6	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Tank	17.0	4,772
Components	0.2	58
Total	17.2	4,830

N-829-28 (3,360,000 gallon domed external floating roof tank, TK 80001)

Tank Emissions

This tank is not being modified; therefore, PE2 is equal to PE1 for this tank.

Fugitive Emissions:

The applicant proposed to add the following fugitive components: 30 valves and 61 fittings. The total fugitive components is: 57 valves (27 + 30), 1 pump (1 + 0) and 109 fittings (48 + 61). Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE2 (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	57	0.13
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	109	0.05
Total				0.2 (0.21)

$$\begin{aligned}
 \text{Annual PE2} &= \text{Daily PE} \times 365 \text{ day/yr} \\
 &= 0.21 \text{ lb-VOC/day} \times 365 \text{ day/yr} &= 77 \text{ lb-VOC/year}
 \end{aligned}$$

Total PE2 (worst case scenario)

N-829-28-7	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Tank	9.2	2,652
Components	0.2	77
Total	9.4	2,729

N-829-29 (3,360,000 gallon domed external floating roof tank, TK 80002)

The applicant proposed to install a geodesic dome and to establish a combined annual organic liquid throughput limit of 258,000,000 gal/year for permit units N-829-28 and N-829-29 (equivalent to 76.79 tank turnovers/year).

Per information provided under this project, the new pump serving this tank is rated at 210,000 gal/hour, with the tank capacity of 3,360,000 gal, the maximum daily and monthly turnover rates for this tank are calculated to 1.5 turnover/day (210,000 gal/hr x 24 hr/day ÷ 3,360,000 gal), and 45 turnover/month (210,000 gal/hr x 24 hr/day x 30 day of April/month ÷ 3,360,000 gal), respectively.

The post-project daily and annual potential emissions are determined by using EPA'S TANKS 4.0.9d program with above tank turnover values (see emissions reports in Appendix D2 of this document). From the emissions reports, the highest monthly VOCs emissions occur in April, so this month is used to quantify the daily emissions from this tank.

This tank will continue to be used for the storage of gasoline and denatured ethanol. Since gasoline storage represents the highest emissions scenario, it will be used to quantify the worst case emissions from this tank. The following table summarizes the worst-case tank

emissions from the storage of these materials (see detailed emissions calculations in Appendix D2a of this document).

Tank Emissions		
Material	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Gasoline	14.8	2,082

Fugitive Emissions:

The applicant proposed to add the following fugitive components: 30 valves and 61 fittings. The total fugitive components is: 43 valves (13 + 30), 1 pump (1 + 0) and 103 fittings (42 + 61). Fugitive emissions from the components associated with this permit unit are calculated using the following equation and are summarized in the following table:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE2 (lb-VOC/day)
Valves	Gas	2.87E-05	--	--
	Light Liquid	9.48E-05	43	0.10
Pump Seals	Gas	1.43E-04	--	--
	Light Liquid	1.19E-03	1	0.03
Others (compressors and others)	Gas	2.65E-04	--	--
	Light Liquid	2.87E-04	--	--
Fittings (connectors and flanges)	Gas	9.26E-05	--	--
	Light Liquid	1.76E-05	103	0.04
Total				0.2 (0.17)

$$\begin{aligned} \text{Annual PE2} &= \text{Daily PE} \times 365 \text{ day/yr} \\ &= 0.17 \text{ lb-VOC/day} \times 365 \text{ day/yr} &= 62 \text{ lb-VOC/year} \end{aligned}$$

Total PE2 (worst case scenario)

N-829-29-8	Daily PE2 (lb-VOC/day)	Annual PE2 (lb-VOC/year)
Tank	14.8	2,082
Components	0.2	62
Total	15.0	2,144

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of Emission Reduction Credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions (AER) that have occurred at the source, and which have not been used on-site.

The SSPE1 is calculated in Appendix E of this document and presented in the following table.

SSPE1 (lb/year)					
Permit Unit	NOx	SOx	PM10	CO	VOC
<i>N-829-1-9 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>11,275</i>
<i>N-829-2-9 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	
N-829-5-5	0	0	0	0	5,083
N-829-6-8	0	0	0	0	4,613
N-829-7-6	0	0	0	0	4,161
<i>N-829-16-10 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1,149</i>
N-829-17-8	0	0	0	0	7,264
N-829-18-8	0	0	0	0	4,146
<i>N-829-20-9 (project)</i>	<i>25,250</i>	<i>272</i>	<i>718</i>	<i>62,370</i>	<i>60,480</i>
<i>N-829-21-5 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>4,798</i>
N-829-22-5	0	0	0	0	6,004
<i>N-829-28-6 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>2,692</i>
<i>N-829-29-7 (project)</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>15,798</i>
N-829-31-5	0	0	0	0	1,236
N-829-32-1	0	0	0	0	2,543
N-829-33-1	0	0	0	0	3,754
N-829-35-1	0	0	0	0	1,168
N-829-37-0	0	0	0	0	410
N-829-38-0	0	0	0	0	197
SSPE1	25,250	272	718	62,370	136,771

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs at the Stationary Source and the quantity of ERCs which have been banked since September 19, 1991 for AER that have occurred at the source, and which have not been used on-site.

SSPE2 (lb/year)					
Permit Unit	NOx	SOx	PM10	CO	VOC
N-829-1-10 (project)	0	0	0	0	11,407
N-829-2-10 (project)	0	0	0	0	
N-829-5-5	0	0	0	0	5,083
N-829-6-8	0	0	0	0	4,613
N-829-7-6	0	0	0	0	4,161
N-829-16-8⁴ (project)	0	0	0	0	1,755
N-829-17-8	0	0	0	0	7,264
N-829-18-8	0	0	0	0	4,146
N-829-20-11 (project)	25,250	272	718	62,370	11,340
N-829-21-6 (project)	0	0	0	0	4,830
N-829-22-5	0	0	0	0	6,004
N-829-28-7 (project)	0	0	0	0	2,729
N-829-29-8 (project)	0	0	0	0	2,144
N-829-31-5	0	0	0	0	1,236
N-829-32-1	0	0	0	0	2,543
N-829-33-1	0	0	0	0	3,754
N-829-35-1	0	0	0	0	1,168
N-829-37-0	0	0	0	0	410
N-829-38-0	0	0	0	0	197
SSPE2	25,250	272	718	62,370	74,784

5. Major Source Determination

Rule 2201 Major Source Determination:

Pursuant to District Rule 2201, a Major Source is a stationary source with a SSPE2 equal to or exceeding one or more of the following threshold values. For the purposes of determining major source status the following shall not be included:

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

This source is an existing Major Source for NOx and VOC emissions and will remain a Major Source for NOx and VOC. No change in other pollutants are proposed or expected as a result of this project.

⁴ The permit modification numbering is out of sequence due to a subsequent Minor Modification to incorporate ATC N-829-16-9 into the TV permit that was processed before this project, resulting in the pre-project permit number to be N-829-16-10. Nevertheless, ATC N-829-16-8 represents the latest permit modification.

Rule 2410 Major Source Determination:

The facility or the equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). Therefore the PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination (tons/year)						
	NO₂	VOC	SO₂	CO	PM	PM₁₀
Estimated Facility PE before Project Increase	12.6	68.4	0.1	31.2	0.4	0.4
PSD Major Source Thresholds	100	100	100	100	100	100
PSD Major Source?	No	No	No	No	No	No

As shown above, the facility is not an existing PSD major source for any regulated NSR pollutant expected to be emitted at this facility.

6. Baseline Emissions (BE)

The BE calculation (in lb/year) is performed pollutant-by-pollutant for each unit within the project to calculate the QNEC, and if applicable, to determine the amount of offsets required.

Pursuant to District Rule 2201, BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to District Rule 2201.

As shown in Section VII.C.5 above, the facility is an existing Major Source for NO_x and VOC emissions. Therefore, the baseline emission for emission units involved in this project is calculated as follows:

VOC Emissions:

Pursuant to Rule 2201, a Clean Emissions Unit is defined as an emissions unit that is “equipped with an emissions control technology with a minimum control efficiency of at least 95% or is equipped with emission control technology that meets the requirements for achieved-in-practice BACT as accepted by the APCO during the five years immediately prior to the submission of the complete application.

N-829-1 and -2 (Loading Racks), and N-829-20 (VCU):

Both loading racks are served by the vapor recovery unit, N-829-20 with VOC control efficiency of 99%, which meets the requirements for achieved-in-practice BACT for organic liquid loading operations as accepted by the District during five years immediately prior to the submissions of the complete application. Therefore, these loading racks are Clean Emissions Units, and the baseline emissions (BE) of each of these permits are equal to the pre-project potential to emit (PE1) = 71,755 lb-VOC/year for the organic liquid loading operation.

N-829-16, -21, -28, and -29 (Floating Roof Storage Tanks):

These storage tanks are each equipped with a primary mechanical seal and a secondary wiper seal that meet the requirements for achieved-in-practice BACT as accepted by the District during five years immediately prior to the submissions of the complete application. Therefore, these storage tanks are Clean Emissions Units, and the baseline emissions (BE) for each of these permit units are equal to the pre-project potential to emit (PE1). As shown in Section VII.C.1 of this document, BE for these storage tanks are equal to the PE1 as follows:

Permit Unit	VOC (lb/year)
N-829-16	1,149
N-829-21	4,798
N-829-28	2,692
N-829-29	15,798
Total	24,437

Project's Baseline Emissions:

As shown above the baseline emissions for the project is equal to 96,192 lb-VOC/year (71,755 + 24,437).

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

As discussed above, this facility is a major source for NO_x and VOC emissions; since the project does not affect NO_x emissions, only the project's PE2 of 34,205 lb-VOC/year (22,747 + 1,755 + 4,830 + 2,729 + 2,144) is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification?
VOC	34,205	50,000	No

As demonstrated in the preceding table, this project does not constitute an SB 288 Major Modification.

8. Federal Major Modification

District Rule 2201 states that a Federal Major Modification is the same as a “Major Modification” as defined in 40 CFR 51.165 and part D of Title I of the CAA.

The determination of Federal Major Modification is based on a two-step test. For the first step, only the emission *increases* are counted. In step 1, emission decreases cannot cancel out the increases. Step 2 allows consideration of the project’s net emissions increase as described in 40 CFR 51.165 and the Federal Clean Air Act Section 182(e), as applicable.

However, as required in the Federal Clean Air Act under section 182(e)(2), Step 2 of the analysis shall not be performed for pollutants or their precursors for which a district is in extreme non-attainment status. For the District, this requirement applies to NO_x and VOC. Therefore, for this project, only step 1 of the analysis is performed when determining Federal Major Modification applicability.

Petroleum storage and transfer operations with a storage capacity of 300,000 barrels or greater are one of the 28 specific source categories listed in 40 CFR 51.165 and therefore must include fugitive emissions in their Federal Major Modification determinations. NuStar stores and transfers petroleum distillates with a capacity greater than 300,000 barrels. Therefore, fugitive emissions associated with this project will be included in the Federal Major Modification determination.

Step 1

A. New Emissions Units

For new emissions units, the increase in emissions is equal to the PE2 for each new unit included in this project.

Emission Increase = PE2

NuStar is proposing to install various fugitive components, such as valves, pumps, and fittings under this project. These are new components, so the emissions increase each is equal to PE2.

Permit Unit	New Fugitive Components
N-829-1	1 pump, 36 valves, and 116 fittings
N-829-2	3 pumps, 21 valves, and 65 fittings
N-829-16	30 valves and 61 fittings
N-829-21	30 valves and 61 fittings
N-829-28	30 valves and 61 fittings
N-829-29	30 valves and 61 fittings

The PE2 for the new fugitive components are calculated as follows:

Fugitive emissions from the new components are calculated using the following equation and are summarized in the following tables:

$$\text{Daily PE} = \text{VOC (lb/hr/source)} \times \text{Component Count} \times 24 \text{ hr/day}$$

Per District Policy APR 1150⁵, for purposes of determining if a new or modified emission unit is part of a Federal Major Modification, if the annual emission increase for the emission unit when divided by 365 is less than or equal to 0.5 lb/day, such an increase shall be rounded to 0. The sum of the emission increases from new or modified emission units involved with this project that round to 0 shall not constitute a Federal Major Modification.

N-829-1 (Loading Rack Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	36	0.08
Pump Seals	Light Liquid	1.19E-03	1	0.03
Fittings	Light Liquid	1.76E-05	116	0.05
Total				0.2 (0.16)

Pursuant to District Policy APR 1150, PE2 = 0.2 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

N-829-2 (Loading Rack Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	21	0.05
Pump Seals	Light Liquid	1.19E-03	3	0.09
Fittings	Light Liquid	1.76E-05	65	0.03
Total				0.2 (0.17)

⁵ https://www.valleyair.org/policies_per/Policies/APR-1150.pdf

Pursuant to District Policy APR 1150, PE2 = 0.2 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

N-829-16 (Storage Tank Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	30	0.07
Fittings	Light Liquid	1.76E-05	61	0.03
Total				0.1 (0.10)

Pursuant to District Policy APR 1150, PE2 = 0.1 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

N-829-21 (Storage Tank Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	30	0.07
Fittings	Light Liquid	1.76E-05	61	0.03
Total				0.1 (0.10)

Pursuant to District Policy APR 1150, PE2 = 0.1 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

N-829-28 (Storage Tank Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	30	0.07
Fittings	Light Liquid	1.76E-05	61	0.03
Total				0.1 (0.10)

Pursuant to District Policy APR 1150, PE2 = 0.1 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

N-829-29 (Storage Tank Fugitive Components)

Component Type	Source Type	VOC EF (lb/hr/source)	Component Count	Daily PE (lb-VOC/day)
Valves	Light Liquid	9.48E-05	30	0.07
Fittings	Light Liquid	1.76E-05	61	0.03
Total				0.1 (0.10)

Pursuant to District Policy APR 1150, PE2 = 0.1 lb-VOC/day is less than 0.5 lb/day, so PE2 rounds to 0.

Except fugitive components, there are no new emission unit associated with this project.

B. Existing Emissions Units (N-829-16, -21, -28, and -29)

Loading Rack

The evaluation of projects N-1190868 and N-1192323 concluded that the loading racks did not have an emission increase for Federal Major Modification purposes.

Organic Liquid Storage Tanks

Since the organic liquid storage tanks under permits N-829-21 and N-829-28 are not being modified under this project, only the organic liquid storage tanks under permits N-829-16 and N-829-29 will be evaluated.

For modified existing emissions units, according to 40 CFR 51.165(a)(2)(ii)(C), the project's emission increase for each pollutant is equal to the sum of the differences between the projected actual emissions (PAE) and the baseline actual emissions (BAE):

$$\text{Project emissions increase} = \sum(\text{PAE} - \text{BAE})$$

As described in 40 CFR 51.165(a)(1)(xxviii)(B), when using historical data and company's expected business activity to determine PAE, the portion of the emissions after the project that the existing unit could have accommodated (Unused Baseline Capacity, UBC) before the project (during the same 24-month baseline period used to determine BAE) and that are unrelated to the particular project (including emissions increases due to product demand growth) are to be excluded.

Otherwise, according to 40 CFR 51.165(a)(1)(xxvii)(B)(4), when determining PAE, in lieu of using the method described in 40 CFR 51.165 (a)(1)(xxviii)(B)(1)-(3), *Projected Actual Emissions*, the owner/operator may elect to use emissions unit's Potential to Emit. If appropriate projected actual emissions are not provided by the applicant, then the emissions unit's Potential to Emit is used to calculate the emissions increase.

Since the project proponent has not provided information required to calculate PAE, the District will use the PE2 to calculate the emissions increase:

$$\text{Project Emissions Increase} = \sum(\text{PE2} - \text{BAE})$$

N-829-16 and -29 (Storage Tanks)

As mentioned in the proposal section, the organic liquid storage tanks under N-829-21 and N-829-28 are not being modified under this project, so only the organic liquid storage tanks under N-829-16 and N-829-29 will be evaluated.

$$\text{Emission Increase (EI)} = \text{PE2} - \text{BAE}$$

The applicant proposed to use 2016-2017 as the baseline period for BAE, which are provided in Appendix F.

Baseline period: 2016-2017

Permit	PE2 (lb-VOC/year)	BAE (lb-VOC/year)	EI (lb-VOC/year)
N-829-16-8	1,697	1,315	382
N-829-29-8	2,082	6,448	-4,366

However, NuStar is a Major Source of VOC, per District Policy APR-1150, only emissions increases are counted for the purposes of determining the project itself results in a significant emissions increase.

Total Emissions Increase for the Project

Emissions Increase = Emission Increase New Units + Emission Increase Existing Units

Permit	New Emission Units PE2 (lb-VOC/year)	Existing Emission Units EI (lb-VOC/year)	Total EI (lb-VOC/year)
N-829-1-10	---	0	0
N-829-2-10	---	0	0
N-829-16-8	0	382	382
N-829-21-6	0	---	0
N-829-28-7	0	---	0
N-829-29-8	0	0	0
Total	0	382	382

The project's combined total emission increase is compared to the Federal Major Modification Threshold below.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	Total Emissions Increases (lb/yr)	Thresholds (lb/yr)	Federal Major Modification?
VOC	382	0	Yes

Since there is an increase of VOC emissions, this project constitutes a Federal Major Modification. Federal Offset quantities are calculated below.

Federal Offset Quantities

The Federal offset quantity (FOQ) is only calculated for the pollutants for which a project is a Federal Major Modification as determined in the section above.

Pursuant to 40 CFR 51.165(a)(3)(ii)(J), the Federal offset quantity is the sum of the annual emission changes for all new and modified emission units in a project calculated as the potential to emit after the modification (PE2) minus the actual emissions (AE) for each emission unit times the applicable federal offset ratio.

$$\text{FOQ} = (\text{PE2} - \text{AE}) \times \text{Federal offset ratio}$$

Please note that, as described in 40 CFR 51.165(a)(1)(xii), actual emissions (AE), as of a particular date, shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The reviewing authority shall allow the use of a different time period upon a determination that it is more representative of normal source operation

Actual Emissions

Actual emissions for this project are based on the average emission rate for each of the modified units during the 2017 and 2018 calendar years. This period immediately precedes the date that the project was deemed complete (2/12/19) and is representative of normal operation of the units. The actual emission rates are calculated in Appendix G and are summarized in the table below.

$$\text{FOQ} = \sum (\text{PE2} - \text{AE})_{\text{All New and Modified Units}} \times \text{Federal offset ratio}$$

Units N-829-1, -2, and -20 are subject to federally enforceable permit conditions limiting the combined organic liquid throughput to 756,000,000 gallons in any one rolling 12-month period and limiting the combined number of organic liquid hose disconnections to 756,000 disconnects in any one rolling 12-month period.

Therefore:

$$\text{FOQ} = [\sum (\text{PE2} - \text{AE})_{\text{Units -1, -2 and -20}} + (\text{PE2} - \text{AE})_{\text{Unit -16}} + (\text{PE2} - \text{AE})_{\text{Unit -29}}] \times \text{Federal offset ratio}$$

$$\text{FOQ} = [(\text{SLC} - \sum \text{AE}_{\text{Units -1, -2 and -20}}) + (\text{PE2} - \text{AE})_{\text{Unit -16}} + (\text{PE2} - \text{AE})_{\text{Unit -29}}] \times \text{Federal offset ratio}$$

Permit No.	Actual Emissions (lb-VOC/year)
N-829-1	8,373
N-829-2	
VCU (N-829-20)	
N-829-16	881
N-829-29	10,793

Federal Offset Ratio

According the CAA 182(e), the federal offset ratio for VOC and NOx is 1.5 to 1 (due to extreme ozone non-attainment). Otherwise, the federal offset ratio for PM2.5, PM10, and SOx is 1.0 to 1.

Federal Offset Quantities (FOQ)

As shown in Section VII.C.2 above, the total fugitive component emissions from N-829-16 are 0.2 lb-VOC/day and from N-829-29 are 0.2 lb-VOC/day. Pursuant to District Policy APR 1150, PE2 values that are less than 0.5 lb/day are set to 0. Therefore, only the PE2 from the organic liquid storage tanks under N-829-16 and N-829-29 will be used in the Federal Offset Quantity calculations.

This project only involves VOC emissions. According the CAA 182(e), the federal offset ratio for VOC is 1.5 to 1.

VOC		Federal Offset Ratio 1.5	
Permit No.	Potential Emissions (lb/year)	Actual Emissions (lb/year)	Emissions Change (lb/yr)
N-829-1 N-829-2 VCU	22,747	8,373	14,374
N-829-16	1,697	881	816
N-829-29	2,082	10,793	-8,711
PE2 - AE (lb/year):			6,479
Federal Offset Quantity: (PE2 – AE) x 1.5			9,719

$$\begin{aligned}\text{Quarterly offsets required (lb/qtr)} &= (9,719 \text{ lb-VOC/year}) \div (4 \text{ quarters/year}) \\ &= 2,429.75 \text{ lb/qtr}\end{aligned}$$

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and $X \div 4 = Y.z$)				
Value of z	Quarter 1	Quarter 2	Quarter 3	Quarter 4
0.0	Y	Y	Y	Y
0.25	Y	Y	Y	Y+1
0.5	Y	Y	Y+1	Y+1
0.75	Y	Y+1	Y+1	Y+1

Therefore the appropriate quarterly emissions to be offset are as follows:

<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>	<u>Total Annual</u>
2,429	2,430	2,430	2,430	9,719

Surplus at the Time of Use Credit

As discussed above, this project is a Federal Major Modification for VOC. Therefore, pursuant to Section 7.4.2.1 of District Rule 2201, emission reduction credits used to satisfy federal offset requirements for VOC must be creditable and surplus at the time of use (ATC issuance). :

The applicant has stated that the facility plans to use ERC certificate C-1440-1 to offset the increases in VOC emissions associated with this project. The District has verified that the ERC certificates provided by the applicant have enough surplus value to satisfy the federal offset quantities required for VOC. Pursuant to the ERC surplus analysis in Appendix N, the District has verified that 100% of the credits from this ERC certificates provided by the applicant are surplus of current requirements.

Therefore the District concludes that the ERC certificates provided by the applicant have enough surplus value to satisfy the federal offset quantities required for VOC.

The above certificate has available quarterly VOC credits as follows:

	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
ERC C-1440-1	2,728	2,572	2,291	2,977

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Project Offsets	2,429	2,430	2,430	2,430
ERC C-1440-1	2,728	2,572	2,291	2,977
Excess	299	142	-139	547
Q2 excess applied to Q3*	--	-142	+142	--
Remainder	299	0	3	547

* Section 4.13.8 of Rule 2201 allows actual VOC emission reductions that occurred from April through November to be used to offset VOC increases during any period of the year. Therefore, the 2nd quarter excess (April – June) will be applied to the 3rd quarter to satisfy the offset obligation.

The following conditions will be included on the Authority to Construct permits to enforce the federal offsetting requirements:

- Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201]

- *ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]*

9. Rule 2410 – Prevention of Significant Deterioration (PSD) Applicability Determination

Rule 2410 applies to any pollutant regulated under the Clean Air Act, except those for which the District has been classified nonattainment. The pollutants which must be addressed in the PSD applicability determination for sources located in the SJV and which are emitted in this project are: (See 52.21 (b) (23) definition of significant)

I. Project Emissions Increase - New Major Source Determination

The post-project potentials to emit from all new and modified units are compared to the PSD major source thresholds to determine if the project constitutes a new major source subject to PSD requirements.

The equipment evaluated under this project is listed as one of the categories specified in 40 CFR 52.21 (b)(1)(iii). The PSD Major Source threshold is 100 tpy for any regulated NSR pollutant.

PSD Major Source Determination: Potential to Emit (tons/year)						
	NO ₂	VOC	SO ₂	CO	PM	PM ₁₀
Total PE from New and Modified Units	0	17.1	0	0	0	0
PSD Major Source threshold	100	100	100	100	100	100
New PSD Major Source?	No	No	No	No	No	No

As shown in the table above, the potential to emit for the project, by itself, does not exceed any PSD major source threshold. Therefore Rule 2410 is not applicable and no further analysis is required.

10. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen.

VIII. Compliance Determination

District Rule 1100 Equipment Breakdown

This Rule defines a breakdown condition and the procedures to follow if one occurs. The corrective action, the issuance of an emergency variance, and the reporting requirements are also specified. Therefore, the following conditions will be listed on the permits to ensure continuous compliance:

- The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100]
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100]

Compliance with the requirements of this Rule is expected.

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Pursuant to District Rule 2201, Section 4.1, BACT requirements are triggered on a pollutant-by-pollutant basis and on an emissions unit-by-emissions unit basis. Unless specifically exempted by Rule 2201, BACT shall be required for the following actions*:

- a. Any new emissions unit with a potential to emit exceeding two pounds per day,
- b. The relocation from one Stationary Source to another of an existing emissions unit with a potential to emit exceeding two pounds per day,
- c. Modifications to an existing emissions unit with a valid Permit to Operate resulting in an Adjusted Increase in Permitted Emissions (AIPE) exceeding two pounds per day, and/or
- d. Any new or modified emissions unit, in a stationary source project, which results in an SB 288 Major Modification or a Federal Major Modification, as defined by the rule.

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, NuStar is proposing to install various fugitive components for ethanol service with a PE for each component not greater than 2

lb/day for VOC. Therefore, BACT for new units with PE > 2 lb/day purposes is not triggered.

b. Relocation of emissions units – PE > 2 lb/day

As discussed in Section I above, there are no emissions units being relocated from one stationary source to another; therefore BACT is not triggered.

c. Modification of emissions units – AIPE > 2 lb/day

$$\text{AIPE} = \text{PE2} - \text{HAPE}$$

Where,

AIPE = Adjusted Increase in Permitted Emissions, (lb/day)

PE2 = Post-Project Potential to Emit, (lb/day)

HAPE = Historically Adjusted Potential to Emit, (lb/day)

$$\text{HAPE} = \text{PE1} \times (\text{EF2}/\text{EF1})$$

Where,

PE1 = The emissions unit's PE prior to modification or relocation, (lb/day)

EF2 = The emissions unit's permitted emission factor for the pollutant after modification or relocation. If EF2 is greater than EF1 then EF2/EF1 shall be set to 1

EF1 = The emissions unit's permitted emission factor for the pollutant before the modification or relocation

$$\text{AIPE} = \text{PE2} - (\text{PE1} * (\text{EF2} / \text{EF1}))$$

N-829-1-10:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Controlled Loading emissions	31.1	165.7	.015/1000	.08/1000	0	No
Disconnection emissions	29.6	29.6	0.0172	0.0172	0.0	No
Fugitive emissions	0.8	0.6	1	1	0.2	No

N-829-2-10:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Controlled Loading emissions	31.1	165.7	.015/1000	.08/1000	0	No
Disconnection emissions	29.6	29.6	0.0172	0.0172	0.0	No
Fugitive emissions	0.8	0.6	1	1	0.2	No

N-829-16-8:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Tank emissions	17.1	11.1	1	1	6.0	Yes
Fugitive emissions	0.2	0.1	1	1	0.1	No

N-829-21-6:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Fugitive emissions	0.2	0.1	1	1	0.1	No

N-829-28-7:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Fugitive emissions	0.2	0.1	1	1	0.1	No

N-829-29-8:

Source	PE2	PE1	EF2	EF1	AIPE	>2.0
Tank emissions	14.8	57.4	1	1	0.0	No
Fugitive emissions	0.2	0.1	1	1	0.1	No

As demonstrated above, the AIPE is greater than 2.0 lb/day for VOC emissions for storage tank N-829-16. Therefore, BACT is triggered.

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project constitutes a Federal Major Modification for VOC emissions. Therefore, BACT is triggered for VOC for each emissions units in the project.

2. BACT Guideline

N-829-1-10, -2-10, -16-8, and -29-8

BACT Guideline 7.1.10 lists VOC emissions control requirements for an Organic Liquid Loading Rack. (See **Appendix G**).

BACT Guideline 7.3.3 lists emissions control requirements for Petroleum and Petrochemical Production – Floating Roof Organic Liquid Storage or Processing Tank with tank capacity equal to or greater than 477 bbl (equivalent to 19,782 gallons), and true vapor pressure equal to or greater than 0.5 psia. (See **Appendix G**).

3. Top-Down BACT Analysis

Per Permit Services Policies and Procedures for BACT, a Top-Down BACT analysis shall be performed as a part of the application review for each application subject to the BACT requirements pursuant to the District's NSR Rule.

N-829-1-10 & -2-10

Pursuant to the attached Top-Down BACT Analysis (see **Appendix I**), BACT has been satisfied with the following for each loading rack:

VOC: Bottom fill loading (submerged pipe fill loading) with dry break couplers, or equivalent, and VOC emissions from the vapor collection and control system less than or equal to 0.015 pounds per 1,000 gallons of organic liquid transferred

N-829-16-8 and -29-8

Pursuant to the attached Top-Down BACT Analysis (see **Appendix I**), BACT has been satisfied with the following for each storage tank:

VOC: 95% control (Primary metal shoe seal with secondary wiper seal, or equal)

B. Offsets

1. Offset Applicability

Pursuant to District Rule 2201, Section 4.5, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the SSPE2 equals or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The SSPE2 is compared to the offset thresholds in the following table.

Offset Determination (lb/year)					
	NO _x	SO _x	PM ₁₀	CO	VOC
SSPE2	25,250	272	718	62,370	74,784
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes*	No	No	No	Yes

* This project involves only VOC emissions. The facility's NO_x emissions are contributed from a single permit unit N-829-20, a 40 MMBtu/hr vapor combustion unit, an emissions control device. No physical modification or change in method of operation is necessary to lower the loading rack VOC EF as proposed under this project. Therefore, offset calculations will be performed only for VOC emissions.

2. Quantity of Offsets Required

As discussed above, this facility is an existing major source for both NO_x and VOC, and the pre-project and post-project potential emissions are each greater than the offset thresholds for both NO_x and VOC. Therefore, offset calculations will be required for this project.

The quantity of offsets in pounds per year for NO_x and VOC is each calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = $(\Sigma[PE2 - BE] + ICCE) \times DOR$, for all new or modified emissions units in the project,

Where,

PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, Located at a Major Source.

otherwise,
BE = HAE

VOC

NuStar receives its organic materials via a pipeline, as well as tanker trucks and railcars. NuStar does not utilize dedicated cargo carrier equipment, defined in section 3.12 of Rule 2201 on site. Rather, the Port of Stockton's locomotive will move the railcars to the facility's offloading area, disconnect from the railcars, and leave NuStar's site. NuStar does not receive any organic materials via ship, and there is no other dockside equipment or dockside activity associated with the NuStar facility. Therefore, there will be no increases in Cargo Carrier emissions as a result of this project, ICCE = 0.

As discussed in Section VII.C.6 and VII.C.7 above, BE for the emission units involved in this project is equal to PE1 of 96,192 lb-VOC/year, and PE2 for the emissions units associated with this project is equal to 34,165 lb-VOC/year. This proposed project constitutes a Federal Major Modification, where the DOR is 1.5 pursuant to section 4.8 of this Rule. Thus,

$$\begin{aligned}\text{Offset Required} &= \Sigma [(PE2 - BE) + 0] \times 1.5 \\ &= \Sigma [(PE2 - PE1)] \times 1.5 \\ &= [34,165 - 96,192] \times 1.5 \\ &= 0 \text{ lb-VOC/year}\end{aligned}$$

As demonstrated in the calculation above, the amount of offsets required is zero. Therefore, offset will not be required for this project.

C. Public Notification

1. Applicability

Pursuant to District Rule 2201, Section 5.4, public noticing is required for:

- a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
- b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- c. Any project which results in the offset thresholds being surpassed,
- d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
- e. Any project which results in a Title V significant permit modification

a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. Since this is not a new facility, public noticing is not required for this project for New Major Source purposes.

As demonstrated in Section VII.C.8, this project triggers Federal Major Modification. Therefore, public noticing for Federal Major Modification purposes is required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit, which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

Pursuant to District Rule 2201, Section 4.5.3, offset requirements shall be triggered on a pollutant-by-pollutant basis, unless exempted pursuant to Section 4.6, offsets shall be required if the post-project Stationary Source Potential to Emit (SSPE2) equals or exceeds specific threshold levels.

The SSPE1 and SSPE2 are compared to the offset thresholds in the following table.

Offset Thresholds				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO _x	25,250	25,250	20,000 lb/year	No
SO _x	272	272	54,750 lb/year	No
PM ₁₀	718	718	29,200 lb/year	No
CO	62,370	62,370	200,000 lb/year	No
VOC	136,771	74,784	20,000 lb/year	No

As detailed above, there were no new thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPe > 20,000 lb/year

Public notification is required for any permitting action that results in a SSIPe of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPe = SSPE2 – SSPE1. The SSIPe is compared to the SSIPe Public Notice thresholds in the following table.

SSIPe Public Notice Thresholds					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPe (lb/year)	SSIPe Public Notice Threshold	Public Notice Required?
NO _x	25,250	25,250	0	20,000 lb/year	No
SO _x	272	272	0	20,000 lb/year	No
PM ₁₀	718	718	0	20,000 lb/year	No
CO	62,370	62,370	0	20,000 lb/year	No
VOC	74,784	136,771	0	20,000 lb/year	No

As demonstrated above, the SSIPes for all pollutants were less than 20,000 lb/year; therefore public noticing for SSIPe purposes is not required.

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project constitutes a Title V significant modification. Therefore, public noticing for Title V significant modifications is required for this project.

2. Public Notice Action

As discussed above, public noticing is required for this project for triggering a Federal Major Modification and Title V signification permit modification. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be electronically published on the District's website prior to the issuance of the ATCs for the equipment.

D. Daily Emission Limits (DELs)

DELs and other enforceable conditions are required by Rule 2201 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. The DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

Proposed Rule 2201 (DEL) Conditions:

N-829-1-10

- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 292 pounds in any one rolling 12-month period. [District Rule 2201]

N-829-2-10

- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 329 pounds in any one rolling 12-month period. [District Rule 2201]

N-829-1-10, N-829-2-10, and N-829-20-11

- The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons in any one day and 756,000,000 gallons in any rolling 12-month period. [District Rule 2201]
- The loading rack shall be equipped with bottom loading equipment, dry break couplers, and a vapor collection and control system such that the VOC emissions shall not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded. [District Rules 2201 and 4624]
- The combined maximum number of organic liquid hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 2,072 disconnects in any one day and 756,000 disconnects in any one rolling 12-month period. [District Rule 2201] Y

- The VOC emission rate from each organic liquid hose disconnect shall not exceed 0.0143 pounds per disconnect. {The VOC emissions rate from each disconnect shall be calculated as follows: VOC emissions rate (lb/disconnect) = volume of organic liquid/disconnect x organic liquid density (lb/gal) x (1 gal/3785.41 mL)}. [District Rule 2201]
- Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201]
- VOC emissions from the vapor recovery system shall not exceed 0.015 pounds per thousand gallons of gasoline loaded. [District Rule 2201]

N-829-16-8

- Total VOC emissions from this permit shall not exceed 17.1 pounds in any one day and 1,697 pounds in any one rolling 12-month period. {Total VOC emissions shall be calculated as follow: Total VOC emissions = Tank VOC emissions + Fugitive Components emissions}. [District Rule 2201]
- The quantity of organic liquid loaded into this tank shall not exceed 5,040,000 gallons in any one day and 252,000,000 gallons in any one rolling 12-month period. [District Rule 2201]⁶
- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201]

N-829-21-6

- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201]

N-829-28-7

- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201]

⁶ The daily throughput of 5,040,000 gal/day is determined based on the new pump capacity of 210,000 gal/hr (210,000 gal/hr x 24 hr/day).

N-829-29-8

- The quantity of organic liquid loaded into this tank shall not exceed 5,040,000 gallons in any one day and 258,000,000 gallons in any one rolling 12-month period. [District Rule 2201]⁴
- Total VOC emissions from the tank shall not exceed 14.8 pounds in any one day and 2,082 pounds in any one rolling 12-month period. {Total VOC emissions shall be calculated as follows: Total VOC Emissions (lb) = Tank VOC Emissions (lb) + Fugitive Component Emissions (lb)} [District Rule 2201]
- Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201]

N-829-16-8, '21-6, '-28-7, and '-29-8

- Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

N-829-1-10, -2-10, -16-8, -20-11, -21-6, -28-7, & -29-8

According to the most recent source test, the loading rack currently comply with the proposed VOC emission factor of 0.015/1,000 gallons. Furthermore, source testing is not required for floating roof organic liquid storage tanks.

Therefore, no source testing is required to demonstrate compliance with Rule 2201.

2. Monitoring

N-829-1-10 & -2-10

These permit units are subject to Rule 4624 requirements. Monitoring requirements for these units will be discussed in the associated sections of this document.

N-829-16-8, -21-6, -28-7, & -29-8

These permit units are subject to Rule 4623 requirements. Monitoring requirements for these units will be discussed in the associated sections of this document.

3. Recordkeeping

N-829-1-10, -2-10, -16-8, -21-6, -28-7, & -29-8

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The permittee is required to maintain records sufficient to demonstrated compliance with each emission limit and permit requirement. All records are required to be maintained on-site for a period of at least five years, and such records shall be make available for District, ARB, and EPA inspection upon request.

4. Reporting

N-829-1-10, -2-10, -16-8, -21-6, -28-7, & -29-8

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. This project involves only VOCs emissions. Since there is no ambient air quality standard (AAQS) for VOCs; an AAQA is not required for this project.

G. Compliance Certification

Section 4.15.2 of this Rule requires the owner of a new Major Source or a source undergoing a Title I Modification to demonstrate to the satisfaction of the District that all other Major Sources owned by such person and operating in California are in compliance or are on a schedule for compliance with all applicable emission limitations and standards. As discussed in Section VII.C.7 above, this project does constitute a Title I modification, therefore this requirement is applicable. NuStar's compliance certification is included in Appendix J.

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to install additional pipelines and fugitive compounds for the ethanol receiving, storage, and loadout operations.

Since the current project involves installation of additional pipelines and fugitive compounds for the ethanol operations to be used at the same location, the existing site will result in the least possible impact from the project. Alternative sites would involve the relocation and/or construction of various support structures and facilities on a much greater scale, and would therefore result in a much greater impact.

Therefore, compliance with the requirements of this Rule is expected.

Rule 2410 Prevention of Significant Deterioration

As shown in Section VII.C.9 above, this project does not result in a new PSD major source or PSD major modification. No further discussion is required

Rule 2520 Federally Mandated Operating Permits

This facility is subject to the requirements of this Rule, and has received their Title V Operating Permit. A significant permit modification is defined as a “permit amendment that does not qualify as a minor permit modification or administrative amendment.”

A minor permit modification is a permit modification that does not meet the definition of modification as given in Section 111 or Section 112 of the Federal Clean Air Act. Since this project involves the installation of new equipment that is subject to an NSPS requirement, the proposed project is considered to be a modification under the Federal Clean Air Act. As a result, the proposed project constitutes a Significant Modification to the Title V Permit.

As discussed above, the facility has applied for a Certificate of Conformity (COC); therefore, the facility must apply to modify their Title V permit with an administrative amendment, prior to operating with the proposed modifications. Continued compliance with this rule is expected. The facility shall not implement the changes requested until the final permit is issued.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60.

Storage Tanks

N-829-16-8, -21-6, -28-7, & -29-8

40 CFR Part 60, Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978

§60.110(c)(2) states the affected facility with a storage vessel for petroleum liquids that has a capacity greater than 246,052 liters (65,000 gallons) and commences construction or modification after June 11, 1973, and prior to May 19, 1978.

§60.14(b) defines modification as any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification.

§60.15(b) defines reconstruction as the replacement of components of an existing facility to such an extent that: the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility.

The following table summarizes the permit unit number, tank capacity, equipment construction, reconstruction, or modification date, and the applicability.

Permit Units	Tank Capacity (gallon)	Tank Installation Year ⁷	Modification Date After 6/11/73 & prior to 5/19/78?	Applicable?
N-829-16	1,386,000	1960	No	No
N-829-21	1,328,124	1970	No	No
N-829-28	3,360,000	1960	No	No
N-829-29	3,360,000	1960	No	No

As shown in the above table, the requirements of this subpart are not applicable to these storage tanks. Detailed discussions are follows:

N-829-16-8, -21-6, -28-7, & -29-8

The capacity of each organic liquid storage tank is greater than 65,000 gallons. However, these tanks have not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed until May 19, 1978. Therefore, the requirements of this subpart do not apply to these tanks, and no further discussion will be required.

40 CFR Part 60, Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and Prior to July 23, 1984

§60.110a(a) states the affected facility to which this subpart applies is each storage vessel with storage capacity of greater than 151,416 liters (equivalent to 40,000 gallons) that is used to store petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978.

The following table summarizes the permit unit number, tank capacity, equipment construction, reconstruction, or modification date, and the applicability.

Permit Units	Tank Capacity (gallon)	Modification Date After 5/18/78 & prior to 7/23/84?	Applicable?
N-829-16	1,386,000	No	No
N-829-21	1,328,124	No	No
N-829-28	3,360,000	No	No
N-829-29	3,360,000	No	No

As shown in the above table, the requirements of this subpart are not applicable to these storage tanks. Detailed discussions are follows:

⁷ Per information provided under project N-1032341.

N-829-16-8 & -29-8

These storage tanks have not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed until July 23, 1984. Therefore, the requirements of this subpart do not apply to this permit unit, and no further discussion will be required.

40 CFR Part 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage vessels) for Which Construction after July 23, 1984

§60.110b(a) states the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 m³ (equivalent 19,813 gallons) that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984.

The following table summarizes the permit unit number, tank capacity, equipment construction, reconstruction, or modification date, and the applicability.

Permit Units	Tank Capacity (gallon)	Modification Date After 7/23/84 & prior to this current project	Modification under this current project?	Applicable?
N-829-16	1,386,000	No	Yes	Yes
N-829-21	1,328,124	No	No	No
N-829-28	3,360,000	No	No	No
N-829-29	3,360,000	No	Yes	Yes

As shown in the above table, the requirements of this subpart are applicable to these storage tanks. Detailed discussions are follows:

Modification after July 23, 1984 and prior to this current project:

N-829-16

This storage tank was modified in 2006 to replace the existing seals with a new set of primary and secondary seals for District Rule 4623 compliance, under project N-1060769.

The cost of the installation of new set of primary and secondary seals under project N-1060769 was significantly less than 50 percent of the fixed capital cost to construct a comparable entirely new facility. In addition, the modification did not result in an increase in emissions of any air pollutant.

NuStar was granted an ATC N-829-16-9 under project N-1191261 to remove and replace the existing sample well with a slotted gauge pole equipped with gasketed sliding cover, float sleeve, and wiper. The proposed modification will not result in an increase in emissions of any air pollutant.

This storage tank had not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed until this proposed project.

N-829-21

This storage tank has not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed and this tank is not being modified in this project.

N-829-28

This storage tank was modified in 1999 to install a geodesic dome and replace the existing seals with a new set of primary and secondary seals, under project N-990475.

The cost of the installation of a geodesic dome and a set of seals under project N-990475 was significantly less than 50 percent of the fixed capital cost to construct a comparable entirely new facility. In addition, the modification did not result in an increase in emissions of any air pollutant.

This storage tank has not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed and this tank is not being modified in this project.

N-829-29

This storage tank has not been reconstructed and/or modified as defined in both §60.14(b) and §60.15(b) sections since they were installed until this proposed project.

Modification under this current project:

N-829-16-8 & -29-8

The proposed modifications to increase the throughput of storage tanks N-829-16-8 and -29-8 will result in an increase of VOC emissions for each tank, which is considered modification per §60.14(b) of this subpart, and therefore the requirements of this subpart are applicable to these tanks.

§60.112b Standard for Volatile Organic Compounds (VOC)

§60.112b(a) requires that the storage tank shall meet the requirement under §60.112b(a)(1) for a fixed roof tank in combination with an internal floating roof, and §60.112b(a)(2) for an external floating roof tank.

N-829-16-8

This is an existing internal floating roof storage tanks.

N-829-29-8

This is an existing external floating roof tank. The facility is proposing to install a geodesic dome to the tank under permit unit N-829-29 under this project.

According to the EPA document ⁸ in the Appendix K of this document, for an external floating roof tank which is enclosed by the installation of a fixed roof meets the 40 CFR 60 Subpart Kb description of an internal floating roof tank and is therefore subject to the requirements for internal floating roof tanks. The enclosed external floating roof tanks are no longer subject to the Subpart Kb requirements for external floating roof tanks.

Therefore, the proposed domed external floating roof tank under permit unit N-829-29 is subject to the internal floating roof tank requirements as a result of this project.

N-829-16-8 & -29-8

§60.112b(a)(1)(i) requires that the internal floating roof be rested or floated on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely 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. Therefore, the following condition will be listed on the permit to ensure compliance:

- The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports; complete emptying and subsequent refilling; tank interior cleaning; and tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, 40 CFR 60.112b(a)(1)(i), and 40 CFR 63.11087(a)]

§60.112b(a)(1)(ii) requires that the internal floating roof be equipped with one of the closure devices provided in §60.112b(a)(1)(ii)(A), §60.112b(a)(1)(ii)(B), or §60.112b(a)(1)(ii)(C).

Each tank is equipped with a mechanical shoe seal listed in §60.112b(a)(1)(ii)(C). The equipment description of permit includes mechanical shoe seal. Therefore, compliance with the requirement of this section is expected.

§60.112b(a)(1)(iii) requires that each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and the rim space vents, provide a projection below the liquid surface. Therefore, the following condition will be listed on the permit to ensure compliance:

⁸ EPA Document Number: 2011-15416 (Abstract for 1000021), <https://www.federalregister.gov/documents/2011/06/21/2011-15416/recent-posting-to-the-applicability-determination-index-adi-database-system-of-agency-applicability>

- Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(iii), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(iv) requires 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 shall be equipped with a cover, or a lid, be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. Therefore, the following condition will be listed on the permit to ensure compliance:

- 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(iv), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(v) requires that automatic bleeder vents be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. Therefore, the following condition will be listed on the permit to ensure compliance:

- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(v), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(vi) requires that rim vents be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. Therefore, the following condition will be listed on the permit to ensure compliance:

- Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(vi), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(vii) requires that each penetration of the internal floating roof for the purpose of sampling be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. Therefore, the following condition will be listed on the permit to ensure compliance:

- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(vii), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(viii) requires that each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof have a flexible fabric sleeve seal or a gasketed sliding cover. Therefore, the following condition will be listed on the permit to ensure compliance:

- Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, 40 CFR Part 60.112b(a)(1)(viii), and 40 CFR Part 63.11087(a)]

§60.112b(a)(1)(ix) requires that each penetration of the internal floating roof that allows for passage of a ladder have a gasketed sliding cover. Therefore, the following condition will be listed on the permit to ensure compliance:

- Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR Part 60.112b(a)(1)(ix) and 40 CFR Part 63.11087(a)]

§60.113b(a)(1) requires that the owner or operator 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 volatile organic liquid. 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 owner or operator shall repair the items before filling the storage vessel. Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repaired, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR Part 60.113b(a)(1), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)]

§60.113b(a)(2) requires that the owner or operator 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 volatile organic liquid 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 owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections 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 §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. Therefore, the following conditions will be listed on the permit to ensure compliance:

- The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR Part 60.113b(a)(2), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)]
- If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 months visual inspection, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR Part 60.113b(a)(2), 40 CFR Part 63.11087(c), and 40 CFR Part 63.11092(e)(1)]

§60.113b(a)(5) requires that the owner or operator to notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by §60.113b(a)(1) of this section to afford the Administrator the opportunity to have an observer present. Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall notify the District in writing at least 30 days prior to conduct the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR Part 60.113b(a)(5), 40 CFR Part 63.11087(c), and 40 CFR Part 63.11092(e)(1)]

§60.115b: Reporting and recordkeeping requirements

This section requires the owner or operator of each storage vessel as specified in §60.112b(a) keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b(a). The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least two years. The records required by (c)(1) will be kept for the life of the control equipment.

N-829-16-8 & -29-8

§60.115b(a)(1) requires that the owner or operator furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3) (i.e. initial startup notification). Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specification of §60.112b(a)(1) and §60.113b(a)(1) within 15 days after the initial startup of the equipment. [40 CFR Part 60.115b(a)(1)]

§60.115b(a)(2) requires that the owner or operator keep a record of each inspection performed as required by §60.113b(a)(1) and (a)(2). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

§60.115b(a)(3) requires that the owner or operator furnish a report to the Administrator within 30 days if any of the condition described in §60.113b(a)(2) are detected during annual visual inspection required by §60.113 b(a)(2). The report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of the defect and date the repair was made.

The following condition will be listed on the permit to ensure compliance with the requirements of §60.115b(a)(2) and (a)(3):

- The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623, 40 CFR Part 60.115b(a) and 40 CFR Part 63.11087(e)]

§60.116b: Monitoring of operations

N-829-16-8 & 29-8

§60.116b(a) requires the owner or operator to keep copies of all records for at least two years. However, Rule 4623, requires all records be kept for a period of at least five year. Therefore, the following condition will be listed on the permit to ensure compliance:

- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, 4623, 40 CFR Part 60.116b(a), and 40 CFR Part 63.11094(a)]

§60.116b(b) requires the owner or operator to keep records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, and these records shall be kept for the life of the source. Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, and these records shall be kept for the life of the source. [40 CFR Part 60.116b(b)]

§60.116b(c) requires the owner or operator to maintain records of the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of that volatile organic liquid during the respective storage period. Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest receipt or highest tank sample results) and actual storage temperature. [District Rule 2201 and 40 CFR Part 60.116b(c)]

Loading Racks

40 CFR Part 60 Subpart XX – Standards of Performance for Bulk Gasoline Terminals

This subpart applies to all of the loading racks at a bulk gasoline terminal, which deliver liquid product into gasoline tank trucks and that commenced construction or modification after December 17, 1980.

N-829-1-10 & -2-10

These loading racks are located at a bulk gasoline terminal, which deliver liquid product into organic liquid (including gasoline) tank trucks. Therefore, the loading racks are subject to the requirements of this subpart.

§60.502 Standard for Volatile Organic Compounds (VOC) emissions from bulk gasoline terminals

§60.502(a) requires that each affected facility must be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading. Therefore, the following condition will be listed on the permit to ensure compliance:

- All vapors displaced from tank truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f), and (g)]

§60.502(c) requires that each affected facility equipped with an existing vapor processing system, the emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 80 milligrams of total organic compounds per liter of gasoline loaded.

The 80 milligrams/liter limit is converted to an equivalent lb/1000 gallons number as follows:

$$\begin{aligned}\text{Limit (lb/1000 gal)} &= 80 \text{ mg/liter} \times 1\text{g}/1000\text{mg} \times 1 \text{ lb}/453.6\text{g} \times 3.785 \text{ liters}/\text{gal} \times 1000 \\ &= 0.67 \text{ lb}/1000 \text{ gal}\end{aligned}$$

The loading racks are currently served by the vapor combustion unit (VCU) under permit unit N-829-20 with a proposed emission limit of 0.015 lb/1000 gallon loaded. Therefore, continuous compliance with the requirement of this section is expected.

§60.502(d) requires that each vapor collection system be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack.

This facility has two existing loading racks that served by the vapor combustion unit. Therefore, the following conditions will be listed on the permit to ensure continuous compliance:

- The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR Part 60.502(d) and 40 CFR Part 63.11088(a)]

§60.502(e) requires that loading of liquids into gasoline tank trucks be limited to vapor tight gasoline tank trucks. Therefore, the following conditions will be listed on the permit to ensure continuous compliance:

- Gasoline shall be loaded only into vapor-tight tank trucks. [40 CFR Part 60.502(e) and 40 CFR Part 63.11088(a)]
- The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)]

§60.502(f) requires that the owner or operator act to assure that loading of gasoline tank trucks at the affected facility are made only into trucks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system.

§60.502(g) requires that the owner or operator act to assure that the terminal and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the facility. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- All vapors displaced during truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f) and (g)]

§60.502(h) requires that the vapor collection and liquid loading equipment be designed 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 §60.503(d)

The 450 millimeter water limit is converted to an equivalent inch water number as follows:

$$\text{Limit (inches water)} = 450 \text{ mm-water} \times 1 \text{ inch}/24.5 \text{ mm} = 18.4 \text{ inches water}$$

District Rule 4624 section 5.4 requires that the vapor collection and control system operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. Therefore, the following condition will be listed on the permits to ensure continuous compliance:

- The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624 and 40 CFR Part 60.502(h)]

§60.502(j) requires that the owner or operator inspect the vapor collection system, vapor processing system, and each loading rack handling gasoline for leaks, each month. For the purposes of determining whether there is a leak, detection methods incorporating sight, sound, and smell are acceptable. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)]

This subpart requires that a leak be repaired within 15 calendar days. However, District Rule 4624 requires leaks to be repaired within 3 calendar days.

§60.503 Test Methods and Procedures

§60.503(d) requires that the owner or operator demonstrate compliance with the standard in §60.502(h) by using:

1. A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable to measuring up to 500 mm of water gauge pressure with ± 2.5 mm of water precision, shall be calibrated and installed on the terminal's vapor recovery system at a pressure tap located as close as possible to the connection with the gasoline tank truck, and
2. During the performance test, the pressure shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

The following condition is currently listed on the vapor combustion system under permit unit N-829-20 to ensure continuous compliance:

- During source testing the loading rack's vapor collection and control system (VCCS) shall be tested at every loading position to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's vapor collection and control system at a pressure tap located as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. [40 CFR Part 60.503(d)]

§60.505 Reporting and Recordkeeping

§60.505(a) requires that the tank truck vapor tightness documentation be kept on file at the terminal in a permanent form available for inspection.

§60.505(b) requires that the documentation file for each gasoline tank truck be updated at least once per year to reflect current test results as determined by Method 27. This documentation must include as a minimum, the following information:

1. Test title: Gasoline Delivery Tank Pressure Test – EPA Method 27.
2. Tank owner and address.
3. Tank identification number.
4. Testing Location.
5. Date of test.
6. Tester name and signature.
7. Witnessing inspector, if any: Name, signature, affiliation.
8. Test Results: Actual pressure change in 5 minutes, mm of water (average over 2 runs).

Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)]

§60.505(c) requires that a record of each monthly leak inspection be kept on file at the terminal at least 2 years, and the inspection records shall include the following information:

1. Date of inspection.
2. Findings (may indicate no leaks discovered; or location, nature, and severity of each leak).
3. Leak determination method.
4. Corrective action (date each leak is repaired; reasons for any repair interval in excess of 15 days).

However, District Rule 4624 requires leaks to be repaired within 3 calendar days. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR 63.11094(e), and 40 CFR Part 63.11095(a)(3)]

Compliance with the requirements of this rule is expected.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63.

40 CFR Part 63 Subpart R – Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)

This terminal is not subject to the requirement of this subpart, since this terminal is not a major source for Hazardous Air Pollutants (HAP), which is determined below:

§63.2 of Subpart A defines “major HAP source” as any stationary source or group of stationary sources that emits or has the potential to emit 10 tons per year or more of any HAP, or 25 tons per year or more of any combination of HAPs.

Per EPA’s document, Gasoline Distribution Industry (Stage 1) – Background Information for Proposed Standards, EPA-453/R-94-002a, Table 3.1, Vapor Profile of Normal Gasoline (see copy of this Table 3.1 in Appendix L of this document), the total HAPs to VOC ratio is 11% by weight.

As shown in Section VII.C.4 of this document, the total VOC emissions from this facility are 71,311 pounds per year. The HAP emissions from this facility are calculated as follows:

$$\begin{aligned}\text{Total HAP} &= 71,311 \text{ lb-VOC/yr} \times 0.11 \text{ lb-HAP/lb-VOC} \\ &= 7,844 \text{ lb-HAP/yr (equivalent to 3.9 tons/yr)}\end{aligned}$$

The total HAP emissions, 3.9 tons per year, from this facility are less than the 25 tons per year threshold for combined HAP emissions and also less than the 10 tons per year threshold for individual HAP emissions. The NuStar terminal is not a major source of HAPs. Therefore, this facility is not subject to the requirements of this subpart, and no further discussion is required.

40 CFR Part 63 Subpart BBBBBB – Gasoline Distribution Facilities (Bulk Gasoline Terminal and Pipeline Breakout Stations)

§63.11080 The purpose of this subpart

§63.11080 states that this subpart established national emission limitations and management practices for Hazardous Air Pollutants (HAP) emitted from area source (not a major HAP source) gasoline distribution bulk terminals, bulk plants, and pipeline facilities. This subpart also established requirements to demonstrate compliance with the emission limitations and management practices.

§63.11081 Applicability of this subpart

§63.11081(a) states that the affected source to which this subpart applies is each area source bulk gasoline terminal, pipeline breakout station, pipeline pumping station, and bulk gasoline plant.

§63.11100 defines that a bulk gasoline terminal means any gasoline storage and distribution facility that receives gasoline by pipeline, ship or barge, or cargo tank and has a gasoline throughput of 20,000 gallons per day or greater.

The facility proposed to keep the existing daily organic liquids (including gasoline) throughput of 2,071,233 gallons unchanged. Therefore, the requirements of this subpart will continue apply to this facility.

§63.11082 Affected source covered by this subpart

§63.11082(a) states the emission sources to which this subpart applies are gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in vapor or liquid gasoline service that meet the criteria specified in Table 1 through 3 to this subpart.

This facility has the emissions units listed above, and therefore are required to comply with the applicable requirements of this subpart.

§63.11083 Compliance Date of this subpart

§63.11083(b) states an existing affected source must comply with the standards in this subpart no later than January 10, 2011. The District received the initial and most recently Notification of Compliance Status Reports on January 10, 2011 and January 22, 2019, respectively. Therefore, continuous compliance with the requirements of this section is expected.

§63.11087 Gasoline Storage Tanks Requirements

§63.11087(a) requires each gasoline storage tank to meet the emissions limit and management practices in Table 1 to this subpart.

N-829-16-8 & -29-8:

The capacity of each of the modified organic liquid (including gasoline) storage tanks is greater than 75 m³ (equivalent 19,813 gallons). Therefore, these storage tanks must meet the requirements listed under §63.11100, Table 1, item 2, as follows:

- a. reduce emissions of total organic HAP or TOC by 95% (by weight) with a closed vent system and control device; or
- b. equip each internal floating roof gasoline tank according to the requirements in 40 CFR Part 60 Subpart Kb, specifically, §60.112b(a)(1) except for the secondary seal requirement under §60.112b(a)(1)(ii)(B) and the requirements in §60.112b(a)(1)(iv) through (ix); and
- c. equip each external roof gasoline storage tank according to the requirements in §60.112b(a)(2), except that the requirements of §60.112b(a)(2)(ii) shall only be required if such storage tank does not currently meet the requirements of §60.112b(a)(2)(i); or
- d. equip and operate each internal and external floating roof gasoline storage tank according to the applicable requirements in §63.1063(a)(1) and (b), and equip each external floating roof gasoline storage tank according to the requirements of §63.1063(a)(2) if such storage tank does not currently meet the requirements of §63.1063(a)(1).

Tanks N-829-21 and '-28 are currently complying with the above provisions.

As discussed in previous sections of this document, tanks N-829-16 and '-28 will comply with the requirements of 40 CFR Part 60 Subpart Kb. Therefore, compliance with the requirements of this section is expected.

§63.11087(c) requires the owner or operator to perform testing and monitoring specified in §63.11092(e).

§63.11092(e) requires the owner or operator to perform inspections of internal floating roof gasoline storage tank per §60.113(a). As discussed above, these tanks will comply with the requirements of 40 CFR Part 60 Subpart Kb, which includes §60.113(a), therefore, compliance with the requirements of this section is expected.

§63.11087(d) requires the owner or operator to submit the applicable notifications as required under §63.11093.

§63.11093(a) requires the owner or operator to submit an Initial Notification as specified in §63.9(b). If the facility is in compliance with the requirements of this subpart at the time the Initial Notification is due, the Notification of Compliance Status required under paragraph (b) of this section may be submitted in lieu of the Initial Notification.

§63.11093(b) requires the owner or operator of an affected source under this subpart must submit a Notification of Compliance Status as specified in §63.9(b). The Notification of Compliance Status must specify which of the compliance options included in Table 1 of this subpart is used to comply with this subpart.

The facility submitted the Initial Notification of Compliance Status to the Administrator and District on January 10, 2011. Therefore, continuous compliance with the requirements of this section is expected.

§63.11087(e) requires the owner or operator to keep records and submit reports as specified in §63.11094 and §63.11095.

§63.11094 and §63.11095 require to keep records and submit reports per §60.115b(a). As discussed above, tanks N-829-21 and '-28 are currently complying with this section and Tanks N-829-16 and '-29 will comply with the requirements of 40 CFR Part 60 Subpart Kb; therefore, compliance with the requirements of this section is expected.

§63.11088 Gasoline Loading Rack Requirements

N-829-1-10 & -2-10

§63.11088(a) requires each loading rack to meet the emissions limit and management practices in Table 2 to this subpart.

These are bulk gasoline terminal loading racks with daily combined organic liquids throughput of 2,071,233 gallons. Therefore, these units must meet the requirements listed in §63.11088(a), Table 2, item 1 as follows:

- a. equip your loading rack with a vapor collection system designed to collect the TOC vapors displaced from cargo tanks during product loading; and
- b. reduce emissions of TOC to less than or equal to 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; and
- c. design and operate the vapor collection system to prevent any TOC vapors collected at one loading rack or land from passing through another loading rack or lane to the atmosphere; and
- d. limit the loading of gasoline into gasoline cargo tanks that are vapor tight using the procedures specified in §60.502(e) through (j).

As discussed in previous section of this document, these bulk loading racks will comply with the requirements of 40 CFR Part 60 Subpart XX as follows:

- Each loading rack is served by a vapor recovery system designed to collect and control the TOC to less than 80 mg/l of gasoline loaded into gasoline cargo tanks at the loading rack; and
- This facility has two loading racks, and the vapor recovery system is designed and operated to prevent any TOC vapors collected at one loading rack from passing through to the atmosphere; and
- The facility is required to obtain and keep records of vapor tightness documentation for each truck loading at this site.

Therefore, continuous compliance with the requirements of this section is expected.

§63.11089 Equipment Leak Inspections Requirements

§63.11089(a) requires the owner or operator to perform a monthly leak inspection of all equipment in gasoline service. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. Therefore, the following conditions will be listed on the permit to ensure continuous compliance:

N-829-1-10, -2-10, and -20-11

- Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)]

N-829-16-8, -21-6, -28-7, & -29-8

- Each calendar month, the owner or operator shall perform leak inspection of all equipment in gasoline service. Equipment in gasoline service is defined as a piece of equipment used in a system that transfers gasoline or gasoline vapors. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR Part 63.11089(a)]

§63.11089(b) requires that a log must be used and must be signed by the owner or operator at the completion of each inspection. A section of the log must contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-1-10, -2-10, -16-8, -20-11, -21-6, -28-7 & -29-8

- For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)]

§63.11089(c) requires that each detection of a liquid or vapor leak must be recorded in the log . When a leak is detected, an initial attempt at repair must be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment must be completed within 15 days after detection of the leak, except as provided in §63.11089(d).

§63.11089(d) states that delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator must submit a semiannual report that includes the reason(s) why the repair was not feasible and the date each repair was completed.

N-829-1-10, -2-10, and -20-11

However, District Rule 4624 requires leaks to be repaired within 3 calendar days. Therefore, the following condition will be listed on the permits to ensure continuous compliance:

- The equipment that are found leaking shall be repaired or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]

N-829-16-8, -21-6, -28-7, & -29-8

The following condition will be listed on the permit to ensure compliance:

- Each detection of a liquid or vapor leak shall be recorded in the log. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)]

§63.11089(e) requires the owner or operator to comply with the requirements of this subpart by the applicable dates specified in §63.11083. §63.11089(f) requires the owner or operator must submit the applicable notifications as required under §63.11093.

As discussed in §63.11083(c), the facility is currently complying with the requirements of these sections.

§63.11089(g) requires the owner or operator to keep records and submit reports as specified in §63.11094 and §63.11095.

The owner or operator is expected to comply with the requirements of these subparts. The following condition will be listed on the permit to ensure continuous compliance:

- The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 11094(e), and 40 CFR Part 63.11095(a)(3)]

§63.11092 Testing and Monitoring Requirements

§63.11092(a)(1) requires the owner or operator to conduct a performance test on the vapor processing and collection system according to either paragraph (a)(1)(i) or paragraph (a)(1)(ii) of this section.

N-829-1-10, -2-10, and -20-11

This section lists testing methods and procedures for the vapor processing and collection systems. These requirements do not apply directly to the loading racks. The testing and monitoring requirements are already incorporated in the vapor combustion unit permit N-829-20. Therefore, no further discussion is required.

§63.11092(e)(1) requires the owner or operator operates gasoline storage tanks to perform inspections according to the requirement of §60.113b(a).

§63.11093 Notifications, Records, and Reports

As discussed above, the District received the initial and most recent Notification of Compliance Status Reports on January 10, 2011 and January 22, 2019, respectively. Therefore, continuous compliance with the requirements of this section is expected.

§63.11094 Recordkeeping Requirements

§63.11094(a) requires that all records be kept for at least five years. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-1-10, -2-10, and -20-11

- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)]

N-829-16-8 & -29-8

- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4623, 40 CFR Part 60.116b(a), and 40 CFR Part 63.11094(a)]

N-829-21-6, -28-7

- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4623, and 40 CFR Part 63.11094(a)]

§63.11094(b) lists recordkeeping requirements for vapor tightness of trucks. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-1-10 & -2-10

- Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)]

§63.11094(d) requires owners or operators that are subject to leak provisions, to keep a record describing the types, identification numbers, and locations of all equipment in gasoline service. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-16-8, -21-6, -28-7, & -29-8

- For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)]

§63.11094(e) requires the owner or operator to keep records of equipment leak inspections. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-16-8, -21-6, -28-7, & -29-8

- The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [40 CFR Part 63.11089(g), 40 CFR Part 63.11094(e), and 40 CFR Part 63.11095(a)(3)]

§63.11095 Reporting Requirements

§63.11095(a)(1) requires the owner or operator to submit a semi-annual compliance report that includes information specified in §60.115(b)(a) for internal floating roof storage tank.

N-829-16-8, -21-6, -28-7, & -29-8

These tanks will comply with the requirements under §60.115(b)(a). Therefore, compliance with the requirements of this section is expected.

§63.11095(a)(2) requires the owner or operator to report each loading of a gasoline cargo tank for which vapor tightness document had not been previously obtained by the facility.

N-829-1-10 & -2-10

The following condition will be listed on the permit to ensure continuous compliance:

- The owner or operator shall submit a semi-annual compliance report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR Part 63.11088(f) and 40 CFR Part 63.11095(a)(2)]

§63.11095(a)(3) requires the owner or operator to report the number of equipment leaks not repaired within 15 days after detection. However, District Rule 4624 requires leaks to be repaired with 72 hours. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

N-829-1-10 & -2-10

- The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 63.11094(e), and 40 CFR Part 63.11095(a)(3)]

§63.11095(a)(4) states the storage vessels complying with §63.11087(b) after January 10, 2011, the storage vessel's Notification of Compliance Status information can be included in the next semi-annual compliance report in lieu of filing a separate Notification of Compliance Status report under §63.11093.

§63.11095(b) requires the owner or operator of an affected source subject to the control requirements of this subpart to submit an excess emissions report to the Administrator at the time the semi-annual compliance report is submitted.

§63.11095(d) requires the owner or operator of an affected source under this subpart to submit a semi-annual report including the number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11085(a), including actions taken to correct a malfunction.

The District received the most recent semi-annual compliance report on January 22, 2019, which included discussion of all requirements under these sections. Therefore, continuous compliance with the requirements of these sections is expected.

Compliance with the requirements of this rule is expected.

Rule 4101 Visible Emissions

Rule 4101 states that no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity). The following condition will be listed on the permits to ensure compliance:

- {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Compliance with the requirements of this rule is expected.

Rule 4102 Nuisance

Rule 4102 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of this operation provided the equipment is well maintained.

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – *Risk Management Policy for Permitting New and Modified Sources* specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

An HRA is not required for a project with a total facility prioritization score of less than one. According to the Technical Services Memo for this project (**Appendix M**), the total facility prioritization score including this project was greater than one. Therefore, an HRA was required to determine the short-term acute and long-term chronic exposure from this project.

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
N-829-1-10	0.00758 per million	No
N-829-2-10	0.00196 per million	No
N-829-16-8	0.00733 per million	No
N-829-21-6	0.0 per million	No
N-829-28-7	0.0 per million	No
N-829-29-8	0.0 per million	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements; therefore, compliance with the District's Risk Management Policy is expected.

District policy APR 1905 also specifies that the increase in emissions associated with a proposed new source or modification not have acute or chronic indices, or a cancer risk greater than the District's significance levels (i.e. acute and/or chronic indices greater than 1 and a cancer risk greater than 20 in a million). As outlined by the HRA Summary in Appendix L of this report, the emissions increases for this project was determined to be less than significant.

The following condition will be listed on the permit to ensure compliance:

- {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

Rule 4623 Storage of Organic Liquids

Section 5.1 of this rule requires Group C vessels (capacity greater than 39,600 gallons) storing liquids with a TVP of greater than 1.5 psia but less than 11 psia to be equipped with a floating roof or have vapor control installed.

N-829-16-8 & -21-6

These are existing internal floating roof storage tanks that are used to store organic liquids with TVP each greater than 1.5 psia but less than 11 psia; and therefore, the requirements of this section are satisfied.

N-829-28-7 & -29-8

Storage tank under permit unit N-829-28 is an existing domed external floating roof tank, whereas storage tank under permit unit N-829-29 will be retrofitted to a domed external floating roof tank as a result of this project. These tanks are used to store organic liquids with TVP each greater than 1.5 psia but less than 11 psia; and therefore, the requirements of this section are satisfied.

As discussed in NSPS section above, a domed external floating roof tank will be considered an internal floating tank and therefore, these domed external floating roof tanks will be subject to internal floating roof requirements.

Section 5.1.3 requires all tanks to be leak-free, as defined by Section 3.17 of the rule.

N-829-16-8, -21-6, -28-7, & -29-8

The following condition will be listed on the permit to ensure compliance:

- A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as a dripping rate of more than three drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623]

Section 5.4.1 requires the internal floating roof tanks to be equipped with seals that meet the criteria set forth in Section 5.3 except for complying with the requirement specified in Section 5.3.2.1.3.

Each tank is a welded type tank and is equipped with mechanical shoe-type design primary seal, so these tanks must meet all the specifications listed in Section 5.3.2.1. Therefore, the following conditions will be listed on the permit to ensure compliance:

- {2506} Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623]
- {2507} The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623]
- {2508} The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623]
- {2509} No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623]
- {2510} No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623]
- {2511} The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623]
- {2555} The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623]
- {2513} The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623]
- {2514} There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623]

- {2515} The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623]
- {2516} The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623]

All four of these tanks may be used to store materials with a true vapor pressure less than 0.5 psia. Rule 4623 Table 1 does not include control requirements for tanks when storing materials with low vapor pressures less than 0.5 psia. Therefore, a condition will be included on each draft Authority to Construct to clarify that Rule 4623 control requirements do not apply when the tank is solely storing low vapor pressure organic liquids

Section 5.4.3 requires the owner or operator to comply with floating roof landing requirements specified in Section 5.3.1.3. Therefore, the following condition will be listed on the permit to ensure compliance:

- The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports; completely emptying the tank and subsequently refilling; tank interior cleaning; and tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, 40 CFR 60.112b(a)(1)(i), and 40 CFR 63.11087(a)]

Section 5.5.1 requires that all openings in the roof used for sampling and gauging, except pressure-vacuum valves complying with Section 5.2, to provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained organic vapor from escaping from the liquid contents of the tank. Therefore, the following condition will be listed on the permit to ensure compliance:

- {2517} All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623]

Section 5.5.2.1 requires that internal floating roof deck fittings to meet all the requirements specified in Section 5.5.2.1.1 through 5.5.2.1.6. Therefore, the following conditions will be listed on the permit to ensure compliance:

- Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623, 40 CFR 60.112b(a)(1)(iii), and 40 CFR 63.11087(a)]

- 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623, 40 CFR 60.112b(a)(1)(iv), and 40 CFR 63.11087(a)]
- Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623, 40 CFR 60.112b(a)(1)(v), and 40 CFR 63.11087(a)]
- Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, 40 CFR 60.112b(a)(1)(vi), and 40 CFR 63.11087(a)]
- Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(vii), and 40 CFR 63.11087(a)]
- Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(viii), and 40 CFR 63.11087(a)]

Sections 5.5.2.4 lists requirements for slotted guidepole. Per project N-1191261, permit unit N-829-16 will be equipped with a slotted gauge pole that equipped with gasketed sliding cover, float sleeve and wiper. Therefore, the following condition will be listed on the permit to ensure compliance:

N-829-16-8

- Slotted sampling or gauging wells shall meet the following requirements: 1) The well shall provide a projection below the liquid surface; 2) The well shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface; and 3) The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule. [District Rule 4623]

Each of the storage tanks under permit units N-829-21, N-829-28 & N-829-29, is equipped with a slotted guidepole. Therefore, the following conditions will be listed on the permit to ensure compliance:

N-829-21-6, -28-7, & -29-8

- All slotted sampling or gauging wells shall provide a projection below the liquid surface. [District Rule 4623]
- The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth inch. [District Rule 4623]

Section 5.7 lists the requirements of the Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program. As discussed above, the facility elected to include these existing storage tanks in the Voluntary Tank Preventive Inspection and Maintenance, and Tank Interior Cleaning Program on January 17, 2017. The following condition will be included on each permit:

- If the owner or operator elects to participate in the voluntary preventative inspection, maintenance, and interior tank cleaning program, then they shall comply with all the applicable requirements of Section 5.7 of District Rule 4623. [District Rule 4623]

Section 6.1.4 requires the owner or operator to perform visual inspections, and conduct actual gap measurements according to the timelines specified in this section. Therefore, the following conditions will be listed on the permit to ensure compliance:

- The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 60.113b(a)(1), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)]
- The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR 60.113b(a)(2), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)]
- The owner or operator shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623 and 40 CFR 63.11087(c)]

Section 6.3 requires the owner or operator to retain accurate records required by this rule for a period of five years. These tanks are subject to the requirements of Section 6.3.5. Therefore, the following conditions will be listed on the permit to ensure compliance:

- The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623, 40 CFR 60.115b(a), and 40 CFR 63.11087(e)]
- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, and 4623]

Section 6.3.7 requires an operator to maintain records of the external floating roof or internal floating roof landing activities. Therefore, the following condition will be listed on the permit to ensure compliance:

- The owner or operator shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623]

Compliance with the requirements of this Rule is expected.

Rule 4624 Transfer of Organic Liquid

Section 3.8 classifies an organic liquids transfer facility with daily transfer throughput more than 20,000 gallons of organic liquids as Class 1 organic liquid transfer facility.

N-829-1-10 & -2-10

The facility has a combined daily organic liquids (including gasoline) throughput limit of 2,071,233 gallons for both loading racks, under permit units N-829-1 and N-829-2. Therefore, this facility is a Class 1 organic liquid transfer facility per Section 3.8 of this rule.

Section 5.1 requires emissions of VOC from this transfer operation to not exceed 0.08 pounds per 1,000 gallons of organic liquid transferred and use one of the following systems: (1) bottom loaded organic liquid loading operation, (2) a system that routes emissions from the transfer operation to: (a) a vapor collection and control system, (b) a fixed roof container that meets the control requirements specified in Rule 4623 (Storage of Organic Liquids), (c) a floating roof container that meets the control requirements specified in District Rule 4623, (d) a pressure vessel equipped with an APCO-approved vapor recovery system that meets the control requirements of Rule 4623, or (e) a closed VOC emission control system.

Each existing loading rack is a bottom loaded loading rack and is served by an existing vapor combustion unit (N-829-20). The proposed 0.015 lb/1000 gallons emission limit will be listed on the vapor combustion unit permit to enforce this requirement, and therefore continuous compliance with this requirement is expected.

Section 5.4 requires the vapor collection and control system be operated such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum.

This requirement will continue be listed on the VCU permit unit N-829-20 to ensure compliance with this requirement.

Section 5.6 requires the transfer rack and vapor collection equipment be designed, installed, maintained, and operated such that there are no leaks and no excess organic liquid drainage at disconnections. Therefore, the following condition will listed on the permit to ensure continuous compliance:

- Loading and vapor collection and control equipment shall be maintained and operated such that there are no leaks and is no excess organic liquid drainage during disconnections. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from the potential source in accordance with EPA Method 21. Excess organic liquid drainage is defined as an average of more than 10 milliliters liquid drainage per disconnect from three consecutive disconnects. [District Rule 4624]

Section 5.9.1 requires the operator of an organic liquid transfer facility to inspect the vapor collection system, the vapor disposal system, and each transfer rack handling organic liquids for leaks during transfer at least once every calendar quarter using the test method prescribed in Section 6.3.8. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- The vapor collection system, the vapor destruction device, and each transfer rack handling organic liquids shall be tested for leaks at least once every calendar quarter with using a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624]

Section 5.9.3 requires that all equipment that is found leaking to be repaired or replaced within 72 hours. If the leaking component cannot be repaired or replaced within 72 hours, the component must be taken out of service until it is repaired or replaced. The repaired or replaced equipment must be re-inspected the first time the equipment is on operation after performing the repair or replacement. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- The equipment that are found leaking shall be repaired or replaced within 72 hours of discovery. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replaced equipment shall be re-inspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624]

Section 5.9.4 states that the operator may apply for a written approval from the APCO to change the inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon the identification of any leak during an annual inspection, the frequency will return to quarterly inspections and the operator must contact the APCO in writing within 14 days. Therefore, the following condition will be listed on the permit to ensure continuous compliance:

- An owner or operator may apply for a written approval from the APCO to change the EPA Method 21 leak inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624]

Section 6.1.3 requires that an operator subject to any part of Section 5.0 to keep records of the daily liquid throughput and the results of any leak inspections. Therefore, the following conditions will be listed on the permit to ensure compliance:

- The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. [District Rules 2201 and 4624]
- The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505 (c) 40 CFR Part 63.11089(g), 40 CFR Part 63.11094(d), and 40 CFR Part 63.11095(a)(3)]

Section 6.1.4 requires that records be retained for a minimum of five years and be made readily available to the APCO, ARB, or EPA during normal business hours and submitted upon request to the APCO, ARB, or EPA. Therefore, the following conditions will continue be listed on the permit to ensure compliance:

- All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, and 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)]

Section 6.2.1 requires that this facility to perform an initial source test of the VOC emission control system in accordance with the method prescribed in Section 6.3.2.

Section 6.2.2 requires the operator to perform source test specified in Section 6.3.2 once every 60 months, but no more than 30 days before or after initial source test anniversary date.

Section 6.3.2 states that demonstrate compliance with the VOC emission limit shall be determined using 40 CFR 60.503 "Test Methods and Procedures" and EPA Methods 2A, 2B, 25A and 25B and ABR method 422, or ARB Test Procedure TP-203.1.

The above testing requirements are listed on the VCU permit unit N-829-20. Therefore, compliance with the requirements of this Rule is expected.

California Health & Safety Code 42301.6 (School Notice)

The District has verified that this site is not located within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required.

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

Greenhouse Gas (GHG) Significance Determination

It is determined that no other agency has prepared or will prepare an environmental review document for the project. Thus the District is the Lead Agency for this project.

On December 17, 2009, the District's Governing Board adopted a policy, APR 2005, *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*, for addressing GHG emission impacts when the District is Lead Agency under CEQA and approved the District's guidance document for use by other agencies when addressing GHG impacts as lead agencies under CEQA. Under this policy, the District's determination of significance of project-specific GHG emissions is founded on the principal that projects with GHG emission reductions consistent with AB 32 emission reduction targets are considered to have a less than significant impact on global climate change. Consistent with District Policy 2005, projects complying with an approved GHG emission reduction plan or GHG mitigation program, which avoids or substantially reduces GHG emissions within the geographic area in which the project is located, would be determined to have a less than significant individual and cumulative impact for GHG emission.

The California Air Resources Board (ARB) adopted a Cap-and-Trade regulation as part one of the strategies identified for AB 32. This Cap-and-Trade regulation is a statewide plan, supported by a CEQA compliant environmental review document, aimed at reducing or mitigating GHG emissions from targeted industries. Facilities subject to the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. Any growth in emissions must be accounted for under that cap such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions.

Under District policy APR 2025, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation*, the District finds that the Cap-and-Trade is a regulation plan approved by ARB, consistent with AB32 emission reduction targets, and supported by a CEQA compliant environmental review document. As such, consistent with District Policy 2005, projects complying with Cap-and-Trade requirements are determined to have a less than significant individual and cumulative impact for GHG emissions.

The GHG emissions increases associated with this project result from the combustion of fossil fuel(s), other than jet fuel, delivered from suppliers subject to the Cap-and-Trade regulation. Therefore, as discussed above, consistent with District Policies APR 2005 and APR 2025, the District concludes that the GHG emissions increases associated with this project would have a less than significant individual and cumulative impact on global climate change.

District CEQA Findings

On April 19, 2019, the Port of Stockton, as the lead agency, certified the Environmental Impact Report (EIR) for the Eco-Energy Liquid Bulk Receiving Terminal project (SCH #2016112007). The project proposed by Eco-Energy is to construct and operate a new 10-acre liquid bulk receiving terminal on the Port of Stockton's East Complex. This ATC application proposes to modify the Approved Eco-Energy EIR to account for NuStar's activities (NuStar Modifications) that are associated with the Approved Eco-Energy Project.

The District has discretionary approval power over the ATC project via its Permits Rule (Rule 2010) and New Source Review Rule (Rule 2201), (CEQA Guidelines §15381). As a Responsible Agency under CEQA, the District is relying on the EIR that was performed by the Port of Stockton as the lead agency for the project and make findings as required by CEQA Guidelines section 15091, "Findings", before approving a project for which an EIR has been previously certified. However, the District determined that the EIR the Port of Stockton prepared as the Lead Agency under CEQA does not provide the information the District, as the Responsible Agency, can rely on in reaching a decision on whether or not to approve NuStar's pending ATC Application. Therefore, in coordination with the Port of Stockton, the District is assuming the duty of the Lead Agency under CEQA for this project.

The NuStar Modifications require only minor additions or changes necessary to make the previous EIR adequately apply to the approved Eco-Energy project in the changed situation. Accordingly, the District finds that the proposed NuStar Modifications for the previously approved EIR would not have new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Therefore, consistent with CEQA Guidelines §15163, the District has prepared a proposed Supplemental EIR for a 45-day public review, which demonstrates that the NuStar Modification will have a less than significant impact on the environment.

In addition, based on the Supplemental EIR analysis, a mitigation measure will be included as a permit condition for NuStar as follows:

- *NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average [California Environmental Quality Act, SEIR 20190182].*

Indemnification Agreement/Letter of Credit Determination

According to Policy APR 2010 (CEQA Implementation Policy, when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit are based on a case-by-case analysis of a particular project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponents ability to pay for the costs of litigation without a letter of credit, among other factors. Although the proposed project has been determined to have a less than significant environmental impact, the proposed project is a potential operation of public concern in the Valley. Therefore, the District determined that an Indemnification Agreement and Letter of Credit for the ATC project is required.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATCs N-829-1-10, N-829-2-10, N-829-16-8, N-829-20-11, N-829-21-6, N-829-28-7, and N-829-29-8 subject to the permit conditions on the attached draft ATCs in **Appendix A**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
N-829-1-10	3020-01-D	Electrical motor horsepower: 155 hp ⁹ (total)	\$362
N-829-2-10	3020-01-D	Electrical motor horsepower: 340 hp ¹⁰ (total)	\$473
N-829-16-8	3020-05-G	Stationary Container: 1,386,000 gal	\$440
N-829-20-11	3020-02-H	Fuel Burning Equipment: 40 MMBtu/hr	\$1,238
N-829-21-6	3020-05-G	Stationary Container: 1,328,124 gal	\$440
N-829-28-7	3020-05-G	Stationary Container: 3,360,000 gal	\$440
N-829-29-8	3020-05-G	Stationary Container: 3,360,000 gal	\$440

⁹ One additional pump rated at 75 hp will be added to this loading rack under this project. The total motor horsepower for this loading rack is equal to 155 hp (80 + 75).

¹⁰ Three additional pumps each rated at 75 hp will be added to this loading rack under this project. The total motor horsepower for this loading rack is equal to 340 hp (115 + 75 x 3).

Appendixes

- A: Draft ATCs
- B: Current PTOs
- C: EPA's Source Determinations Guidance Document
- D: EPA's Tanks 4.0.9d Emissions Reports
- E: SSPE1 Calculations
- F: Baseline Actual Emissions Calculations
- G: Actual Emission Calculations
- H: BACT Guideline
- I: BACT Analysis
- J: Compliance Certification
- K: EPA Document 2011-15416 – ADI Control Number 1000021
- L: Gasoline Distribution Industry (Stage I) – Background Information for Proposed Standards
- M: HRA Summary
- N: ERC Surplus Analysis

APPENDIX A

Draft ATCs

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-829-1-10

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, AND 1 BIODIESEL LOADING ARM, A BIODIESEL LOADING PUMP, AND A 2-STREAM BLEND SKID: INSTALL 1 ETHANOL LOADING PUMP, FUGITIVE COMPONENTS, AND ASSOCIATED PIPELINES.

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-1-10 : Nov 9 2020 10:44AM -- HARADERJ : Joint Inspection NOT Required

5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 292 pounds in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons in any one day and 756,000,000 gallons in any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined maximum number of organic liquid hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 2,072 disconnects in any one day and 756,000 disconnects in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The VOC emission rate from each organic liquid hose disconnect shall not exceed 0.0143 pounds per disconnect. {The VOC emissions rate from each disconnect shall be calculated as follows: VOC emissions rate (lb/disconnect) = volume of organic liquid/disconnect x organic liquid density (lb/gal) x (1 gal/3785.41 mL)}. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The loading rack shall be equipped with bottom loading equipment, dry break couplers, and a vapor collection and control system such that the VOC emissions shall not exceed 0.015 pounds per 1,000 gallons of organic liquid loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All vapors displaced from tank truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f), and (g)] Federally Enforceable Through Title V Permit
17. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR Part 60.502(d) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
18. Gasoline shall be loaded only into vapor-tight tank trucks. [40 CFR Part 60.502(e) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
19. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
20. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624 and 40 CFR Part 60.502(h)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
22. The vapor collection system, the vapor destruction device, and each transfer rack handling organic liquids shall be tested for leaks at least once every calendar quarter with using a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
23. Loading and vapor collection and control equipment shall be maintained and operated such that there are no leaks and is no excess organic liquid drainage during disconnections. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from the potential source in accordance with EPA Method 21. Excess organic liquid drainage is defined as an average of more than 10 milliliters liquid drainage per disconnect from three consecutive disconnects. [District Rule 4624] Federally Enforceable Through Title V Permit
24. The equipment that are found leaking shall be repaired or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
25. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
26. An operator or owner may apply for a written approval from the APCO to change the EPA Method 21 leak inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit
27. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)] Federally Enforceable Through Title V Permit
28. Each calendar month, liquid drainage at disconnect of each loading arm shall be determined, and appropriate action shall be taken in case excess liquid drainage occurs from any loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Liquid drainage inspections shall be completed after midnight and before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit
30. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 11094(e), and 40 CFR Part 63.11095(a)(3)] Federally Enforceable Through Title V Permit
33. The owner or operator shall submit a semi-annual compliance report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR Part 63.11088(f) and 40 CFR Part 63.11095(a)(2)] Federally Enforceable Through Title V Permit
34. The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
35. The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) number of organic liquid hose disconnection from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. As part of the recordkeeping log, the owner or operator may establish a correlation between the organic liquid throughput and the number of disconnects based on the volume of trucks loaded and the number of disconnects per truck. [District Rule 2201] Federally Enforceable Through Title V Permit
36. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
37. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)] Federally Enforceable Through Title V Permit

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*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-829-2-10

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A BIODIESEL LOADING PUMP, A 4-STREAM BLEND SKID, AND A BIODIESEL TRUCK OFF-LOADING PUMP: INSTALL 3 ETHANOL LOADING PUMPS, FUGITIVE COMPONENTS, AND ASSOCIATED PIPELINES.

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-2-10 : Nov 9 2020 10:42AM -- HARADERJ : Joint Inspection NOT Required

5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 329 pounds in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
12. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons in any one day and 756,000,000 gallons in any rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. The combined maximum number of organic liquid hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 2,072 disconnects in any one day and 756,000 disconnects in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
14. The VOC emission rate from each organic liquid hose disconnect shall not exceed 0.0143 pounds per disconnect. {The VOC emissions rate from each disconnect shall be calculated as follows: VOC emissions rate (lb/disconnect) = volume of organic liquid/disconnect x organic liquid density (lb/gal) x (1 gal/3785.41 mL)}. [District Rule 2201] Federally Enforceable Through Title V Permit
15. The loading rack shall be equipped with bottom loading equipment, dry break couplers, and a vapor collection and control system such that the VOC emissions shall not exceed 0.015 pounds per 1,000 gallons of organic liquid loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
16. All vapors displaced from tank truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f), and (g)] Federally Enforceable Through Title V Permit
17. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR Part 60.502(d) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
18. Gasoline shall be loaded only into vapor-tight tank trucks. [40 CFR Part 60.502(e) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
19. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
20. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624 and 40 CFR Part 60.502(h)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

21. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
22. The vapor collection system, the vapor destruction device, and each transfer rack handling organic liquids shall be tested for leaks at least once every calendar quarter with using a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
23. Loading and vapor collection and control equipment shall be maintained and operated such that there are no leaks and is no excess organic liquid drainage during disconnections. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from the potential source in accordance with EPA Method 21. Excess organic liquid drainage is defined as an average of more than 10 milliliters liquid drainage per disconnect from three consecutive disconnects. [District Rule 4624] Federally Enforceable Through Title V Permit
24. The equipment that are found leaking shall be repaired or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
25. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
26. An operator or owner may apply for a written approval from the APCO to change the EPA Method 21 leak inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit
27. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)] Federally Enforceable Through Title V Permit
28. Each calendar month, liquid drainage at disconnect of each loading arm shall be determined, and appropriate action shall be taken in case excess liquid drainage occurs from any loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit
29. Liquid drainage inspections shall be completed after midnight and before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit
30. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520] Federally Enforceable Through Title V Permit
31. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

32. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 11094(e), and 40 CFR Part 63.11095(a)(3)] Federally Enforceable Through Title V Permit
33. The owner or operator shall submit a semi-annual compliance report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR Part 63.11088(f) and 40 CFR Part 63.11095(a)(2)] Federally Enforceable Through Title V Permit
34. The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
35. The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) number of organic liquid hose disconnection from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. As part of the recordkeeping log, the owner or operator may establish a correlation between the organic liquid throughput and the number of disconnects based on the volume of trucks loaded and the number of disconnects per truck. [District Rule 2201] Federally Enforceable Through Title V Permit
36. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations. [District Rule 2201] Federally Enforceable Through Title V Permit
37. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)] Federally Enforceable Through Title V Permit

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*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-829-16-8

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED GASOLINE STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL: SPECIFY THE TANK BE USED TO STORE GASOLINE; INSTALL FUGITIVE COMPONENTS; AND ESTABLISH AN ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 252,000,000 GALLONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-16-8 : Nov 9 2020 10:42AM -- HARADERJ : Joint Inspection NOT Required

5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Total VOC emissions from this permit shall not exceed 17.1 pounds in any one day and 1,697 pounds in any one rolling 12-month period. {Total VOC emissions shall be calculated as follow: Total VOC emissions = Tank VOC emissions + Fugitive Components emissions}. [District Rule 2201] Federally Enforceable Through Title V Permit
11. The quantity of organic liquid loaded into this tank shall not exceed 5,040,000 gallons in any one day and 252,000,000 gallons in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc, associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
15. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
18. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The cumulative length all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled, and for tank interior cleaning, and during tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, 40 CFR 60.112b(a)(1)(i), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
27. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
28. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as a dripping rate of more than three drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623, 40 CFR 60.112b(a)(1)(iii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
30. 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623, 40 CFR 60.112b(a)(1)(iv), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
31. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623, 40 CFR 60.112b(a)(1)(v), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
32. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, 40 CFR 60.112b(a)(1)(vi), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(vii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
34. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(viii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

35. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
36. Slotted sampling or gauging wells shall meet the following requirements: 1) The well shall provide a projection below the liquid surface; 2) The well shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface; and 3) The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623] Federally Enforceable Through Title V Permit
37. If the owner or operator elects to participate in the voluntary preventative inspection, maintenance, and interior tank cleaning program, then they shall comply with all the applicable requirements of Section 5.7 of District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
38. The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 60.113b(a)(1), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
39. The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR 60.113b(a)(2), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
40. The owner or operator shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
41. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company 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), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
42. The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

43. The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623, 40 CFR 60.115b(a), and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
44. Each calendar month, the owner or operator shall perform leak inspection of all equipment in gasoline service. Equipment in gasoline service is defined as a piece of equipment used in a system that transfers gasoline or gasoline vapors. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR 63.11089(a)] Federally Enforceable Through Title V Permit
45. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR 63.11089(b) and 40 CFR 63.11094(d)] Federally Enforceable Through Title V Permit
46. The owner or operator shall visually inspect the internal floating roof, the primary seal and/or secondary seal, gaskets, slotted membrane and/or sleeve seals each time the storage tank is emptied and degassed. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to refilling the tank. [40 CFR 60.113b(a)(4), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
47. Each detection of a liquid or vapor leak shall be recorded in the log. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR 63.11089(c) and (d), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
48. The owner or operator shall submit a semi-annual compliance report that contains all required information stipulated under 40 CFR 63.11095(a) to the Administrator and the District. [40 CFR 63.11095(a)] Federally Enforceable Through Title V Permit
49. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [40 CFR 63.11089(g), 40 CFR 63.11094(e), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
50. The owner or operator shall submit an excess emissions report that contains all required information that stipulated under 40 CFR 63.11095(b)(5) to the Administrator and the District. The excess emissions report shall be submitted along with the semi-annual compliance report. [40 CFR 63.11095(b)(5)] Federally Enforceable Through Title V Permit
51. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, and these records shall be kept for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

52. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest receipt or highest tank sample results) and actual storage temperature. TVP could also be determined using the calculation methodology listed in Appendix A or Appendix B of District Rule 4623, depending on the liquid stored. [District Rule 2201 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
53. The owner or operator shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
54. The owner or operator shall keep daily and cumulative annual records on a rolling 12-month period of the quantity of organic liquid loaded into the tank, in gallons. This record shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations/modeling. [District Rule 2201] Federally Enforceable Through Title V Permit
56. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, and 4623, 40 CFR 60.116b(a), and 40 CFR 63.11094(a)] Federally Enforceable Through Title V Permit
57. If the permittee has degassed the storage tank pursuant to the provisions of Section 5.7.5 of Rule 4623, and the organic liquid stored in the tank has a TVP less than 0.5 psia, as determined by Appendix A of Rule 4623, the tank shall not be required to comply with the requirements listed in conditions 14 through 36 and 38 through 51 of this permit. The permittee shall maintain records of the organic liquid stored in the tank and the storage temperature to demonstrate that the TVP is less than 0.5 psia. Records will be maintained by the permittee according to Condition 57. [District Rule 4623] Federally Enforceable Through Title V Permit

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*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

PERMIT NO: N-829-20-11

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF VAPOR COMBUSTION SYSTEM CONSISTING OF A 300,000 GALLON VAPOR HOLDING TANK, A VAPOR PROCESSING AND CONVEYING SYSTEM, AND A 40 MMBTU/HR PROPANE FIRED JOHN ZINK ZCT-2-8-35-X-2/8-X VAPOR COMBUSTION UNIT (VCU): REDUCE LOADING RACK VOC EF TO 0.015 LB/1,000 GALLONS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-20-11 : Nov 9 2020 10:43AM -- HARADERJ : Joint Inspection NOT Required

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5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. The VOC destruction efficiency shall be at least 99% and all gasoline loading shall be conducted utilizing bottom loading and dry-break couplers. [District Rule 4102]
11. Gasoline shall be loaded only into vapor tight tank trucks. [40 CFR Part 60.502(e)] Federally Enforceable Through Title V Permit
12. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
13. VOC emissions from the vapor recovery system shall not exceed 0.015 pounds per thousand gallons of gasoline loaded. [District Rules 2201, 4624, 5.1.1, San Joaquin County Rule 412, and 40 CFR 63.11088(a)] Federally Enforceable Through Title V Permit
14. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR 63.11088(a)] Federally Enforceable Through Title V Permit
15. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
16. The combined quantity of organic liquid (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 756,000,000 gallons in any rolling 12-month period. This annual limit shall be lowered in the event that the CARB certifies the vapor recovery system can process VOC emissions with a daily gasoline throughput of less than 2,071,233 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
17. The combined quantity of organic liquid (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
18. The vapor combustor's combustion chamber shall be configured to operate with logic controls set to shut the vapor combustor system down and close the block valve to receiving vapors if the operating temperature does not reach a minimum of 900 degrees Fahrenheit within 10 minutes. [District Rules 2201, 4102, and 40 CFR 63.11088(d)] Federally Enforceable Through Title V Permit
19. The vapor combustor shall be equipped for continuous monitoring and recording of combustion temperature. Temperature charts shall be made available to the District upon request. [District Rule 2201, 40 CFR Part 64 and 40 CFR 63.11088(d)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

20. Should the vapor combustor's operating temperature fall below 900 degrees Fahrenheit, the permittee shall investigate the cause and take corrective action to return the operating temperature to an acceptable level as soon as possible, but no longer than one hour after initial detection. If the operating temperature cannot be raised to an acceptable value within one hour after detection, the permittee shall notify the District within the following hour and conduct a certified source test within 60 days of initial detection. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviation is a result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [40 CFR Part 64] Federally Enforceable Through Title V Permit
21. Loading and vapor collection and control equipment shall be designed, installed, maintained, and operated such that there are no leaks. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from potential source in accordance with EPA Method 21. [District Rule 4624 and San Joaquin County Rule 412] Federally Enforceable Through Title V Permit
22. The vapor collection system, the vapor destruction device and each transfer rack shall be tested for leaks at least once every calendar quarter with a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
23. The equipment that are found leaking shall be repair or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
24. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 days after it is detected. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
25. A log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
26. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit
27. The owner or operator shall maintain a log book that contain the following information: 1.) dates of leak inspections, 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection; 3.) findings, 4.) corrective action, 5.) repair methods applied in each attempt to repair the leak; 6.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the expected date of successful repair of the leak if the leak is not repaired within 15 days; 8.) the date of successful repair of the leak; and 9.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505 (c) and 40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
28. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

29. During source testing the loading rack's vapor collection and control system (VCCS) shall be tested at every loading position to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. [District Rule 2520 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit
30. Source testing to determine compliance with the emission rate and VOC destruction efficiency requirements of this permit shall be conducted at least once every 60 months. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
31. Source testing shall be conducted using methods and procedures approved by District. The District must be notified 30 days prior to any compliance source testing and a pretest plan outlining the test methods and procedures shall be submitted for the District approval no later than 15 days prior to each test. [District Rule 1081] Federally Enforceable Through Title V Permit
32. Source testing shall be witnessed or authorized by District Personnel. [District Rule 1081] Federally Enforceable Through Title V Permit
33. VOC emissions from the vapor collection and control system shall be determined using 40 CFR 60.503 "Test Methods and Procedures" and EPA Reference Methods 2A, 2B, 25A, 25B, and ARB Method 422, or ARB Test Procedure TP-203.1. [District Rule 4624 and San Joaquin County Rule 412] Federally Enforceable Through Title V Permit
34. Source testing for VOC destruction efficiency shall be conducted utilizing EPA Method 18, EPA Method 25A or CARB Method 100. Alternative methods may be utilized provided they are previously approved by the District, in writing. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
35. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
36. A log of all breakdowns of the vapor recovery system indicating the times, dates and gallons processed during the breakdown periods shall be maintained on the premises at all times and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
37. The owner or operator shall keep records of the daily and cumulative annual (on a rolling 12-month period) organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. The cumulative annual records shall be updated at least weekly. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
38. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.5059(a) and 40 CFR 63.11094(b)] Federally Enforceable Through Title V Permit
39. The semi-annual compliance report shall include each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR 63.11088(f)] Federally Enforceable Through Title V Permit
40. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 4624] Federally Enforceable Through Title V Permit

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*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

PERMIT NO: N-829-21-6

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 1,328,124 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#3302) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: INSTALL FUGITIVE COMPONENTS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-21-6 : Nov 9 2020 10:43AM -- HARADERJ : Joint Inspection NOT Required

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5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc, associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
17. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The cumulative length all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
21. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports; complete emptying and subsequent refilling, tank interior cleaning, and tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
25. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
26. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as a dripping rate of more than three drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
28. 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
34. All slotted sampling or gauging wells shall provide a projection below the liquid surface. [District Rule 4623]
35. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth inch. [District Rule 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

36. If the owner or operator elects to participate in the voluntary preventative inspection, maintenance, and interior tank cleaning program, then they shall comply with all the applicable requirements of Section 5.7 of District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
37. The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
38. The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
39. The owner or operator shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
40. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
41. The owner or operator shall notify the District in writing at least 30 days prior to conducting the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
42. The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
43. Each calendar month, the owner or operator shall perform leak inspection of all equipment in gasoline service. Equipment in gasoline service is defined as a piece of equipment used in a system that transfers gasoline or gasoline vapors. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR 63.11089(a)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

44. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR 63.11089(b) and 40 CFR 63.11094(d)] Federally Enforceable Through Title V Permit
45. The owner or operator shall visually inspect the internal floating roof, the primary seal and/or secondary seal, gaskets, slotted membrane and/or sleeve seals each time the storage tank is emptied and degassed. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to refilling the tank. [40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
46. Each detection of a liquid or vapor leak shall be recorded in the log. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR 63.11089(c) and (d), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
47. The owner or operator shall submit a semi-annual compliance report that contains all required information stipulated under 40 CFR 63.11095(a) to the Administrator and the District. [40 CFR 63.11095(a)] Federally Enforceable Through Title V Permit
48. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [40 CFR 63.11094(e), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
49. The owner or operator shall submit an excess emissions report that contains all required information that stipulated under 40 CFR 63.11095(b)(5) to the Administrator and the District. The excess emissions report shall be submitted along with the semi-annual compliance report. [40 CFR 63.11095(b)(5)] Federally Enforceable Through Title V Permit
50. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, and these records shall be kept for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest receipt or highest tank sample results) and actual storage temperature. TVP could also be determined using the calculation methodology listed in Appendix A or Appendix B of District Rule 4623 depending on the liquid stored. [District Rule 4623] Federally Enforceable Through Title V Permit
52. The owner or operator shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
53. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, and 4623 and 40 CFR 63.11094(a)] Federally Enforceable Through Title V Permit
54. If the permittee has degassed the storage tank pursuant to the provisions of Section 5.7.5 of Rule 4623, and the organic liquid stored in the tank has a TVP less than 0.5 psia, as determined by Appendix A of Rule 4623, the tank shall not be required to comply with the requirements listed in conditions 13 through 36 and 38 through 51 of this permit. The permittee shall maintain records of the organic liquid stored in the tank and the storage temperature to demonstrate that the TVP is less than 0.5 psia. Records will be maintained by the permittee according to Condition 57. [District Rule 4623] Federally Enforceable Through Title V Permit

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

PERMIT NO: N-829-28-7

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3,360,000 GALLON WELDED DOMED EXTERNAL FLOATING ROOF STORAGE TANK (#80001)
WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: INSTALL
FUGITIVE COMPONENTS

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-28-7 : Nov 9 2020 10:43AM -- HARADERJ : Joint Inspection NOT Required

5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc, associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
11. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
13. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
14. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
15. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
16. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
17. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
18. The cumulative length all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit
21. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports; completely emptying the tank and subsequently refilling; tank interior cleaning; and tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
25. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
26. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as a dripping rate of more than three drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
27. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
28. 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
29. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
30. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
31. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
32. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
34. All slotted sampling or gauging wells shall provide a projection below the liquid surface. [District Rule 4623]
35. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth inch. [District Rule 4623] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

36. If the owner or operator elects to participate in the voluntary preventative inspection, maintenance, and interior tank cleaning program, then they shall comply with all the applicable requirements of Section 5.7 of District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
37. The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
38. The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
39. The owner or operator shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
40. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
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42. The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623 and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
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CONDITIONS CONTINUE ON NEXT PAGE

44. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR 63.11089(b) and 40 CFR 63.11094(d)] Federally Enforceable Through Title V Permit
45. The owner or operator shall visually inspect the internal floating roof, the primary seal and/or secondary seal, gaskets, slotted membrane and/or sleeve seals each time the storage tank is emptied and degassed. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to refilling the tank. [40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
46. Each detection of a liquid or vapor leak shall be recorded in the log. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR 63.11089(c) and (d), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
47. The owner or operator shall submit a semi-annual compliance report that contains all required information stipulated under 40 CFR 63.11095(a) to the Administrator and the District. [40 CFR 63.11095(a)] Federally Enforceable Through Title V Permit
48. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [40 CFR 63.11089(g), 40 CFR 63.11094(e), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
49. The owner or operator shall submit an excess emissions report that contains all required information that stipulated under 40 CFR 63.11095(b)(5) to the Administrator and the District. The excess emissions report shall be submitted along with the semi-annual compliance report. [40 CFR 63.11095(b)(5)] Federally Enforceable Through Title V Permit
50. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest receipt or highest tank sample results) and actual storage temperature. TVP could also be determined using the calculation methodology listed in Appendix A or Appendix B of District Rule 4623, depending on the liquid stored. [District Rule 4623] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
52. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, and 4623, and 40 CFR 63.11094(a)] Federally Enforceable Through Title V Permit
53. If the permittee has degassed the storage tank pursuant to the provisions of Section 5.7.5 of Rule 4623, and the organic liquid stored in the tank has a TVP less than 0.5 psia, as determined by Appendix A of Rule 4623, the tank shall not be required to comply with the requirements listed in conditions 13 through 36 and 38 through 51 of this permit. The permittee shall maintain records of the organic liquid stored in the tank and the storage temperature to demonstrate that the TVP is less than 0.5 psia. Records will be maintained by the permittee according to Condition 57. [District Rule 4623] Federally Enforceable Through Title V Permit

DRAFT

*San Joaquin Valley
Air Pollution Control District*

AUTHORITY TO CONSTRUCT

ISSUANCE DATE: DRAFT

PERMIT NO: N-829-29-8

LEGAL OWNER OR OPERATOR: NUSTAR TERMINALS OPS PARTNERSHIP LP

MAILING ADDRESS: 9280 W STOCKTON BLVD STE 220
ELK GROVE, CA 95758-8077

LOCATION: 2941 NAVY DRIVE
STOCKTON, CA 95206

EQUIPMENT DESCRIPTION:

MODIFICATION OF 3,360,000 GALLON WELDED EXTERNAL FLOATING ROOF STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: SPECIFY THE TANK BE USED TO STORE GASOLINE AND DENATURED ETHANOL; INSTALL FUGITIVE COMPONENTS FOR ETHANOL SERVICES; ESTABLISH A COMBINED ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 258,000,000 GALLONS; AND INSTALL A GEODESIC DOMED ROOF.

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating the equipment under ATCs N-829-1-10, '-2-10, '-16-8, '-20-11, '-21-6, '-28-7, and '-29-8, the permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 2,429 lb, 2nd quarter - 2,430 lb, 3rd quarter - 2,430 lb, and 4th quarter - 2,430 lb. These values already include an offset ratio of 1.5 for VOC emissions. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate C-1440-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (209) 557-6400 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Samir Sheikh, Executive Director / APCO

Arnaud Marjollet, Director of Permit Services

N-829-29-8 : Nov 9 2020 10:43AM -- HARADERJ : Joint Inspection NOT Required

5. NuStar shall develop a plan demonstrating that the off-road equipment (owned, leased, and subcontractor vehicles greater than 50 hp) to be used in the construction of the proposed project would achieve a project-wide fleet-average of 20% NOx reduction compared to the most recent CARB fleet average. [California Environmental Quality Act, SEIR #20190182]
6. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100] Federally Enforceable Through Title V Permit
7. The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100] Federally Enforceable Through Title V Permit
8. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. {15} No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
10. Total VOC emissions from the tank shall not exceed 14.8 pounds in any one day and 2,082 pounds in any one rolling 12-month period. {Total VOC emissions shall be calculated as follows: Total VOC Emissions (lb) = Tank VOC Emissions (lb) + Fugitive Component Emissions (lb)} [District Rule 2201] Federally Enforceable Through Title V Permit
11. The quantity of organic liquid loaded into this tank shall not exceed 5,040,000 gallons in any one day and 258,000,000 gallons in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc, associated with this permit unit shall not exceed 73 pounds in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623] Federally Enforceable Through Title V Permit
15. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623] Federally Enforceable Through Title V Permit
16. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
17. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
18. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
19. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623] Federally Enforceable Through Title V Permit
20. The cumulative length all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623] Federally Enforceable Through Title V Permit
21. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623] Federally Enforceable Through Title V Permit
22. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

23. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
24. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
25. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623] Federally Enforceable Through Title V Permit
26. The internal floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports; complete emptying and subsequent refilling; tank interior cleaning; and tank repair and maintenance activities. When the roof is resting on the leg supports the processes of filling or emptying and refilling shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rules 2020, 2201, and 4623, 40 CFR 60.112b(a)(1)(i), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
27. All openings in the roof used for sampling and gauging, except pressure-vacuum valves which shall be set to within 10% of the maximum allowable working pressure of the roof, shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be gas tight, except when the device or appurtenance is in use. [District Rule 4623] Federally Enforceable Through Title V Permit
28. A leak-free condition is defined as a condition without a gas or liquid leak. A gas leak is defined as a reading in excess of 10,000 ppmv as methane, above background, as measured by a portable hydrocarbon detection instrument in accordance with the procedures specified in EPA Test Method 21. A liquid leak is defined as a dripping rate of more than three drops per minute. A reading in excess of 10,000 ppmv as methane above background or a liquid leak of greater than three drops per minute is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623] Federally Enforceable Through Title V Permit
29. Each opening in a non-contact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents shall provide a projection below the liquid surface. [District Rule 4623, 40 CFR 60.112b(a)(1)(iii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
30. 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 shall be equipped with a cover, or a lid shall be maintained in a closed position at all times (i.e. no visible gaps) except when the device is in use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted in place except when they are in use. [District Rule 4623, 40 CFR 60.112b(a)(1)(iv), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
31. Automatic bleeder vents shall be equipped with a gasket and shall be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the leg roof supports. [District Rule 4623, 40 CFR 60.112b(a)(1)(v), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
32. Rim vents shall be equipped with a gasket and shall be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [District Rule 4623, 40 CFR 60.112b(a)(1)(vi), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
33. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90 percent of the opening. The fabric cover must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(vii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
34. Each penetration of the internal floating roof that allows for the passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. The fabric sleeve must be impermeable. [District Rule 4623, 40 CFR 60.112b(a)(1)(viii), and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

35. Each penetration of the internal floating roof that allows for the passage of a ladder shall have a gasketed sliding cover. [40 CFR 60.112b(a)(1)(ix) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
36. All slotted sampling or gauging wells shall provide a projection below the liquid surface. [District Rule 4623]
37. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth inch. [District Rule 4623] Federally Enforceable Through Title V Permit
38. If the owner or operator elects to participate in the voluntary preventative inspection, maintenance, and interior tank cleaning program, then they shall comply with all the applicable requirements of Section 5.7 of District Rule 4623. [District Rule 4623] Federally Enforceable Through Title V Permit
39. The owner or operator shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank for newly constructed, repair, or rebuilt internal floating roof tanks. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 40 CFR 60.113b(a)(1), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
40. The owner or operator shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 40 CFR 60.113b(a)(2), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
41. The owner or operator shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
42. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company 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), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
43. The owner or operator shall notify the District in writing at least 30 days prior to conduct the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 60.113b(a)(5), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
44. The owner or operator shall furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specification of 40 CFR Part 60.112b(a)(1) and 40 CFR Part 60.113b(a)(1) within 15 days after the initial startup of the equipment. [40 CFR 60.115b(a)(1)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

45. The owner or operator shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1) Date the storage vessel was emptied, date of inspection and names and titles of company personnel doing the inspection. 2) Tank identification number and Permit to Operate number. 3) Observed condition of each component of the control equipment (seals, internal floating roof, and fittings). 4) Measurements of the gaps between the tank shell and primary and secondary seals. 5) Leak free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in parts per million by volume (ppmv). 6) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.4 and 5.5.2.4.3 of Rule 4623. 7) Nature of defects and any corrective actions or repairs performed on the tank in order to comply with rule 4623 and 40 CFR Part 60 Subpart Kb and the date(s) such actions were taken. [District Rule 4623, 40 CFR 60.115b(a), and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
46. Each calendar month, the owner or operator shall perform leak inspection of all equipment in gasoline service. Equipment in gasoline service is defined as a piece of equipment used in a system that transfers gasoline or gasoline vapors. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR 63.11089(a)] Federally Enforceable Through Title V Permit
47. For monthly leak inspection, a log shall be used and shall be signed by the owner or operator at the completion of each 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 facility. [40 CFR 63.11089(b) and 40 CFR 63.11094(d)] Federally Enforceable Through Title V Permit
48. The owner or operator shall visually inspect the internal floating roof, the primary seal and/or secondary seal, gaskets, slotted membrane and/or sleeve seals each time the storage tank is emptied and degassed. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to refilling the tank. [40 CFR 60.113b(a)(4), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)(1)] Federally Enforceable Through Title V Permit
49. Each detection of a liquid or vapor leak shall be recorded in the log. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR 63.11089(c) and (d), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
50. The owner or operator shall submit a semi-annual compliance report that contains all required information stipulated under 40 CFR 63.11095(a) to the Administrator and the District. [40 CFR 63.11095(a)] Federally Enforceable Through Title V Permit
51. The owner or operator shall maintain a log that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [40 CFR 63.11089(g), 40 CFR 63.11094(e), and 40 CFR 63.11095(a)(3)] Federally Enforceable Through Title V Permit
52. The owner or operator shall submit an excess emissions report that contains all required information that stipulated under 40 CFR 63.11095(b)(5) to the Administrator and the District. The excess emissions report shall be submitted along with the semi-annual compliance report. [40 CFR 63.11095(b)(5)] Federally Enforceable Through Title V Permit
53. The owner or operator shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel, and these records shall be kept for the life of the source. [40 CFR 60.116b(b)] Federally Enforceable Through Title V Permit

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CONDITIONS CONTINUE ON NEXT PAGE

54. The owner or operator shall maintain records of the volatile organic liquid stored, the period of storage, and TVP of that volatile organic liquid during the respective storage period. TVP shall be determined using the data on the Reid vapor pressure (highest receipt or highest tank sample results) and actual storage temperature. TVP could also be determined using the calculation methodology listed in Appendix A or Appendix B of District Rule 4623, depending on the type of liquid stored. [District Rule 2201 and 40 CFR 60.116b(c)] Federally Enforceable Through Title V Permit
55. The owner or operator shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Section 5.3.1.3 and 5.4.3. The records shall include information on the TVP, API gravity, and type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623] Federally Enforceable Through Title V Permit
56. The owner or operator shall keep daily and cumulative annual records on a rolling 12-month period of the quantity of organic liquid loaded into the tank, in gallons. The record shall be updated at least weekly. [District Rule 2201] Federally Enforceable Through Title V Permit
57. The owner or operator shall maintain records sufficient to demonstrate compliance with each emission limit. These records shall contain each calculated emission quantity as well as each process variable used in the respective calculations/modeling. [District Rule 2201] Federally Enforceable Through Title V Permit
58. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, and EPA inspection upon request. [District Rules 1070, 2201, and 4623, 40 CFR 60.116b(a), and 40 CFR 63.11094(a)] Federally Enforceable Through Title V Permit
59. If the permittee has degassed the storage tank pursuant to the provisions of Section 5.7.5 of Rule 4623, and the organic liquid stored in the tank has a TVP less than 0.5 psia, as determined by Appendix A of Rule 4623, the tank shall not be required to comply with the requirements listed in conditions 13 through 36 and 38 through 52 of this permit. The permittee shall maintain records of the organic liquid stored in the tank and the storage temperature to demonstrate that the TVP is less than 0.5 psia. Records will be maintained by the permittee according to Condition 57. [District Rule 4623] Federally Enforceable Through Title V Permit

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APPENDIX B

Current PTOs

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-1-9

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, AND 1 BIODIESEL LOADING ARM, A BIODIESEL LOADING PUMP, AND A 2-STREAM BLEND SKID

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 219 pounds in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 756,000,000 gallons in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined maximum number of organic liquids hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 2,072 disconnects in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The combined maximum number of organic liquids hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 756,000 disconnects in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The VOC emission rate from each organic liquids hose disconnect shall not exceed 0.0172 pounds per disconnect. {The VOC emissions rate from each disconnect shall be calculated as follow: VOC emissions rate (lb/disconnect) = 10 mL-VOC/disconnect x organic liquid density (lb/gal) x (1 gal/3785.41 mL)}. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The loading rack shall be equipped with bottom loading equipment, dry break couplers, and a vapor collection and control system such that the VOC emissions shall not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All vapors displaced from tank truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f), and (g)] Federally Enforceable Through Title V Permit
10. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR Part 60.502(d) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: NUSTAR TERMINALS OPS PARTNERSHIP LP

Location: 2941 NAVY DRIVE, STOCKTON, CA 95206

N-829-1-9 : Oct 29 2020 1:56PM -- HARADERJ

11. Gasoline shall be loaded only into vapor-tight tank trucks. [40 CFR Part 60.502(e) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
12. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
13. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624 and 40 CFR Part 60.502(h)] Federally Enforceable Through Title V Permit
14. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
15. The vapor collection system, the vapor destruction device, and each transfer rack handling organic liquids shall be tested for leaks at least once every calendar quarter with using a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
16. Loading and vapor collection and control equipment shall be maintained and operated such that there are no leaks and is no excess organic liquid drainage during disconnections. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from the potential source in accordance with EPA Method 21. Excess organic liquid drainage is defined as an average of more than 10 milliliters liquid drainage per disconnect from three consecutive disconnects. [District Rule 4624] Federally Enforceable Through Title V Permit
17. The equipment that are found leaking shall be repaired or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
18. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
19. An operator or owner may apply for a written approval from the APCO to change the EPA Method 21 leak inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit
20. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)] Federally Enforceable Through Title V Permit
21. Each calendar month, liquid drainage at disconnect of each loading arm shall be determined, and appropriate action shall be taken in case excess liquid drainage occurs from any loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit
22. Liquid drainage inspections shall be completed after midnight and before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

23. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520] Federally Enforceable Through Title V Permit
24. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)] Federally Enforceable Through Title V Permit
25. The owner or operator shall maintain a log book that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 11094(e), and 40 CFR Part 63.11095(a)(3)] Federally Enforceable Through Title V Permit
26. The owner or operator shall submit a semi-annual compliance report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR Part 63.11088(f) and 40 CFR Part 63.11095(a)(2)] Federally Enforceable Through Title V Permit
27. The owner or operator shall keep records of the organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
28. The owner or operator shall keep records of the cumulative organic liquids throughput on a rolling 12-month basis, in gallons from permit units N-829-1 and N-829-2. The record shall be updated at least weekly. [District Rule2 2201 and 4624] Federally Enforceable Through Title V Permit
29. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)] Federally Enforceable Through Title V Permit

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San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-2-9

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A BIODIESEL LOADING PUMP, A 4-STREAM BLEND SKID, AND A BIODIESEL TRUCK OFF-LOADING PUMP

PERMIT UNIT REQUIREMENTS

1. Fugitive VOC from components, such as valve, flange, connector, pump seal, etc., associated with this permit unit shall not exceed 256 pounds in any one calendar year. [District Rule 2201] Federally Enforceable Through Title V Permit
2. Fugitive VOC emissions from component leaks shall be calculated using component count and appropriate emission factors from "California Implementation Guidelines for Estimating Mass Emissions of Fugitive Hydrocarbon Leaks at Petroleum Facilities", Table IV-1b (Feb 1999) - Marketing Terminal Average Emission Factors. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The combined quantity of organic liquids (as defined in District Rule 4624) loaded through permit units N-829-1 and N-829-2 shall not exceed 756,000,000 gallons in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
5. The combined maximum number of organic liquid hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 2,072 disconnects in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
6. The combined maximum number of organic liquid hose disconnections performed by permit units N-829-1 and N-829-2 shall not exceed 756,000 disconnects in any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
7. The VOC emission rate from each organic liquid hose disconnect shall not exceed 0.0172 pounds per disconnect. {The VOC emissions rate from each disconnect shall be calculated as follow: $\text{VOC emissions rate (lb/disconnect)} = 10 \text{ mL-VOC/disconnect} \times \text{organic liquid density (lb/gal)} \times (1 \text{ gal}/3785.41 \text{ mL})$ }. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The loading rack shall be equipped with bottom loading equipment, dry break couplers, and a vapor collection and control system such that the VOC emissions shall not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded. [District Rule 2201] Federally Enforceable Through Title V Permit
9. All vapors displaced from tank truck loading shall be vented to the vapor combustion system under permit unit N-829-20. [District Rule 2201 and 40 CFR Part 60.502(a), (f), and (g)] Federally Enforceable Through Title V Permit
10. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR Part 60.502(d) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Gasoline shall be loaded only into vapor-tight tank trucks. [40 CFR Part 60.502(e) and 40 CFR Part 63.11088(a)] Federally Enforceable Through Title V Permit
12. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
13. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624 and 40 CFR Part 60.502(h)] Federally Enforceable Through Title V Permit
14. All delivery tanks which previously contained organic liquids, including gasoline, with a TVP greater than 1.5 psia at loading conditions shall be filled only at Class 1 loading facilities using bottom loading equipment with a vapor collection and control system operating such that VOC emissions do not exceed 0.08 pounds per 1,000 gallons of organic liquid loaded and which operate so the delivery tank does not exceed 18 inches water column pressure nor 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
15. The vapor collection system, the vapor destruction device, and each transfer rack handling organic liquids shall be tested for leaks at least once every calendar quarter with using a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
16. Loading and vapor collection and control equipment shall be maintained and operated such that there are no leaks and is no excess organic liquid drainage during disconnections. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from the potential source in accordance with EPA Method 21. Excess organic liquid drainage is defined as an average of more than 10 milliliters liquid drainage per disconnect from three consecutive disconnects. [District Rule 4624] Federally Enforceable Through Title V Permit
17. The equipment that are found leaking shall be repaired or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
18. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
19. An operator or owner may apply for a written approval from the APCO to change the EPA Method 21 leak inspection frequency from quarterly to annually provided no leaks were found during five consecutive quarterly inspections. Upon identification of any leak during an annual inspection, the inspection frequency shall revert back to quarterly, and the operator shall contact the APCO in writing within 14 days. [District Rule 4624] Federally Enforceable Through Title V Permit
20. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b) and 40 CFR Part 63.11094(d)] Federally Enforceable Through Title V Permit
21. Each calendar month, liquid drainage at disconnect of each loading arm shall be determined, and appropriate action shall be taken in case excess liquid drainage occurs from any loading arm. If no excess drainage conditions are found during five consecutive monthly inspections, the drainage inspection frequency may be changed from monthly to quarterly. However, if one or more excess drainage condition is found during a quarterly inspection, the inspection frequency shall return to monthly. [District Rule 2520] Federally Enforceable Through Title V Permit
22. Liquid drainage inspections shall be completed after midnight and before 10:00 AM the day of inspection. Compliance shall be demonstrated by collecting all drainage at disconnect in a spouted container. The drainage shall be transferred to a graduated cylinder and the volume determined within one minute of collection. [District Rule 2520] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

23. Loading of a delivery vessel shall discontinue if its pressure relief valve opens. Corrective action shall be taken should this condition occur. [District Rule 2520] Federally Enforceable Through Title V Permit
24. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.505(a) and (b), and 40 CFR Part 63.11094(b)] Federally Enforceable Through Title V Permit
25. The owner or operator shall maintain a log book that contains the following information: 1.) dates of leak inspections, 2.) the nature of the leak and the method of detection; 3.) findings, 4.) corrective action (date each leak is repaired), 5.) repair methods applied in each attempt to repair the leak; 6.) the reason for the delay if the leak is not repaired within 3 calendar days after discovery of the leak; 7.) the date of successful repair of the leak; and 8.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505(c), 40 CFR Part 63.11089(g), 40 CFR Part 11094(e), and 40 CFR Part 63.11095(a)(3)] Federally Enforceable Through Title V Permit
26. The owner or operator shall submit a semi-annual compliance report that includes each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR Part 63.11088(f) and 40 CFR Part 63.11095(a)(2)] Federally Enforceable Through Title V Permit
27. The owner or operator shall keep records of the organic liquids throughput, in gallons from permit units N-829-1 and N-829-2. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
28. The owner or operator shall keep records of the cumulative organic liquids throughput on a rolling 12-month basis, in gallons from permit units N-829-1 and N-829-2. The record shall be updated at least weekly. [District Rule2 2201 and 4624] Federally Enforceable Through Title V Permit
29. All records shall be maintained on site for a period of at least five years and shall be made available for District, ARB, or EPA inspection upon request. [District Rules 1070, 2201, 4624, and 40 CFR Part 60.505, and 40 CFR Part 63.11094(a)] Federally Enforceable Through Title V Permit

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San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-16-10

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL

PERMIT UNIT REQUIREMENTS

1. True vapor pressure (TVP) of the organic liquid stored shall be less than 11 psia. [District Rule 4623, 5.1.1] Federally Enforceable Through Title V Permit
2. VOC emissions shall not exceed 9.1 pounds in any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
3. The organic liquid throughput shall not exceed 33,264,000 gallons during any one rolling 12-month period. [District Rule 2201] Federally Enforceable Through Title V Permit
4. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge. [40 CFR 60.112a(2) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
5. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel 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. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, 5.4.1 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
6. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
7. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
8. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
9. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
10. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
11. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
12. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 5.4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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13. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4 and 5.4.1] Federally Enforceable Through Title V Permit
14. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623, 5.3.2.1.5 and 5.4.1] Federally Enforceable Through Title V Permit
15. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6 and 5.4.1] Federally Enforceable Through Title V Permit
16. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7 and 5.4.1] Federally Enforceable Through Title V Permit
17. All openings in the roof used for sampling and gauging shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use for sampling and gauging. [District Rule 5.5.2.1.2] Federally Enforceable Through Title V Permit
18. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Method 21. Liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A reading in excess to 10,000 ppmv, as methane, above background, or dripping of organic liquid at a rate of more than 3 drops per minute, is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.11, 3.17, 3.18 and 6.4.8] Federally Enforceable Through Title V Permit
19. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.1.1 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
20. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, combination manway/vacuum breakers, and stub drains is to be 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. [District Rule 4623, 5.5.2.1.2] Federally Enforceable Through Title V Permit
21. Automatic bleeder vents shall be equipped with a gasket and shall 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. [District Rule 4623, 5.5.2.1.3] Federally Enforceable Through Title V Permit
22. Rim vents shall 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. [District Rule 4623, 5.5.2.1.4] Federally Enforceable Through Title V Permit
23. 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. The fabric sleeve must be impermeable. [District Rule 4623, 5.5.2.1.6] Federally Enforceable Through Title V Permit
24. Slotted sampling or gauging wells shall meet the following requirements: 1) The well shall provide a projection below the liquid surface; 2) The well shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed one-eighth (1/8) inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface; and 3) The gap between the pole wiper and the guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed one-eighth (1/8) inch. [District Rule 4623, 5.5.2.4] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. The permittee shall notify the District in writing at least 30 days prior to conduct the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
26. For newly constructed, repaired, or rebuilt internal floating roof tanks, the permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 6.1.4.1 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
27. The owner or operator shall perform a monthly leak inspection of all equipment in gasoline service, as defined in section 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
28. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
29. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit
30. The owner or operator shall maintain a log book that contain the following information for a leak during during monthly inspection: 1.) equipment type and identification number; 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection (i.e. sight, sound, or smell); 3.) the date the leak was detected and the date of each attempt to repair the leak; 4.) repair methods applied in each attempt to repair the leak; 5.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 6) the expected date of successful repair of the leak if the leak is not repaired within 15 days; and 7.) the date of successful repair of the leak. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
31. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 6.1.4.2 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
32. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted memberanes and sleeve seals (if any) each time the vessel is emptied and degassed. 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 owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel. [40 CFR Part 63.11087(c)] Federally Enforceable Through Title V Permit
34. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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35. All covers, seals and lids covering openings in the roof used for sampling and gauging shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. If one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
36. The operator shall determine the presence of gas leaks using portable hydrocarbon detection instrument in accordance with EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
37. The operator shall maintain an inspection log containing the following: 1.) Type of component leaking; 2.) Date of leak detection, and method of detection; 3.) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this rule. [District Rule 4623, 6.1.4.3 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
39. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. The permittee shall determine the maximum true vapor pressure of the stored organic liquid on a monthly basis, using the calculation methodology listed in Appendix B of District Rule 4623. The permittee shall keep a record of all Reid vapor pressure measurements for the stored organic liquid and shall use the highest recorded Reid vapor pressure of the month when determining the maximum true vapor pressure. The permittee shall keep a record of the actual storage temperature of the organic storage tank and shall use the highest temperature recorded of the month when determining the maximum true vapor pressure. [District Rule 4623] Federally Enforceable Through Title V Permit
41. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1.) Date of inspection and names and titles of company personnel doing the inspection; 2.) Tank identification number and Permit to Operate number; 3.) Measurements of the gaps between the tank shell and primary and secondary seals; 4.) Leak-free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in ppmv. 5.) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6.) Any corrective actions or repairs performed on the tank in order to comply with Rule 4623 and the date(s) such actions were taken. [District Rule 4623, 6.3.5 and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. The permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
44. The following test methods shall be used: ASTM Method D287 for determining API Gravity, ASTM Method D4057 sampling for API Gravity testing; ASTM D323 for determining RVP, and converting RVP to TVP at the tank's maximum organic liquid storage temperature; ARB Method 422 for determining exempt halogenated VOCs in gases; EPA Method 21 for measuring gas-leak concentration. Should the owner or operator wish to use test methods other than the ones mentioned in this condition, the methods must be approved by the District prior to its use. [District Rule 4623,6.4] Federally Enforceable Through Title V Permit
45. On a monthly basis, the permittee shall calculate and record organic liquid throughput, in gallons, for the previous 12-consecutive months. [District Rule 2201] Federally Enforceable Through Title V Permit
46. The permittee shall maintain records sufficient to demonstrate compliance with the daily VOC emission limit. These records shall contain the calculated emission quantity as well as each process variable used in the respective calculations/modeling. [District Rules 2080 and 2201] Federally Enforceable Through Title V Permit
47. All records required to be maintained by this permit shall be maintained for a period of at least five years and shall be made readily available for District inspection upon request. [District Rule 4623, 6.3] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-20-9

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

VAPOR COMBUSTION SYSTEM CONSISTING OF A 300,000 GALLON VAPOR HOLDING TANK, A VAPOR PROCESSING AND CONVEYING SYSTEM, AND A 40 MMBTU/HR PROPANE FIRED JOHN ZINK ZCT-2-8-35-X-2/8-X VAPOR COMBUSTION UNIT (VCU)

PERMIT UNIT REQUIREMENTS

1. The VOC destruction efficiency shall be at least 99% and all gasoline loading shall be conducted utilizing bottom loading and dry-break couplers. [District Rule 4102]
2. Gasoline shall be loaded only into vapor tight tank trucks. [40 CFR Part 60.502(e)] Federally Enforceable Through Title V Permit
3. The facility shall obtain the vapor tightness documentation specified in 40 CFR Part 60.505(b) for each gasoline tank truck that is to be loaded at the facility. [40 CFR Part 60.502(e)(1)] Federally Enforceable Through Title V Permit
4. VOC emissions from the vapor recovery system shall not exceed 0.08 pounds per thousand gallons of gasoline loaded. [District Rules 4624, 5.1.1, San Joaquin County Rule 412, and 40 CFR 63.11088(a)] Federally Enforceable Through Title V Permit
5. The vapor collection system shall be operated in a manner to prevent any organic vapors collected at one loading rack from passing to another loading rack. [40 CFR 63.11088(a)] Federally Enforceable Through Title V Permit
6. The vapor collection and control system shall operate such that the pressure in the delivery tank being loaded does not exceed 18 inches water column pressure and 6 inches water column vacuum. [District Rule 4624] Federally Enforceable Through Title V Permit
7. The combined quantity of gasoline loaded through permit units N-829-1 and N-829-2 shall not exceed 756,000,000 gallons during any one calendar year. This annual limit shall be lowered in the event that the CARB certifies the vapor recovery system can process VOC emissions with a daily gasoline throughput of less than 2,071,233 gallons. [District Rule 2201] Federally Enforceable Through Title V Permit
8. The combined quantity of gasoline loaded through permit units N-829-1 and N-829-2 shall not exceed 2,071,233 gallons during any one day. [District Rule 2201] Federally Enforceable Through Title V Permit
9. The vapor combustor's combustion chamber shall be configured to operate with logic controls set to shut the vapor combustor system down and close the block valve to receiving vapors if the operating temperature does not reach a minimum of 900 degrees Fahrenheit within 10 minutes. [District Rules 2201, 4102, and 40 CFR 63.11088(d)] Federally Enforceable Through Title V Permit
10. The vapor combustor shall be equipped for continuous monitoring and recording of combustion temperature. Temperature charts shall be made available to the District upon request. [District Rule 2201, 40 CFR Part 64 and 40 CFR 63.11088(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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11. Should the vapor combustor's operating temperature fall below 900 degrees Fahrenheit, the permittee shall investigate the cause and take corrective action to return the operating temperature to an acceptable level as soon as possible, but no longer than one hour after initial detection. If the operating temperature cannot be raised to an acceptable value within one hour after detection, the permittee shall notify the District within the following hour and conduct a certified source test within 60 days of initial detection. In lieu of conducting a source test, the permittee may stipulate a violation that is subject to enforcement action has occurred. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviation is a result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [40 CFR Part 64] Federally Enforceable Through Title V Permit
12. Loading and vapor collection and control equipment shall be designed, installed, maintained, and operated such that there are no leaks. A leak is defined as the dripping of organic compounds at a rate of more than three drops per minute or the detection of organic compounds, in excess of 10,000 ppm as methane measured at the surface of the component interface from potential source in accordance with EPA Method 21. [District Rule 4624 and San Joaquin County Rule 412] Federally Enforceable Through Title V Permit
13. The vapor collection system, the vapor destruction device and each transfer rack shall be tested for leaks at least once every calendar quarter with a portable hydrocarbon analyzer in accordance with EPA Method 21. [District Rule 4624] Federally Enforceable Through Title V Permit
14. The equipment that are found leaking shall be repair or replaced within 72 hours after detecting the leakage. If the leaking component cannot be repaired or replaced within 72 hours, the component shall be taken out of service until such time the component is repaired or replaced. The repaired or replacement equipment shall be reinspected the first time the equipment is in operation after the repair or replacement. [District Rule 4624] Federally Enforceable Through Title V Permit
15. Each calendar month, the vapor collection system, the vapor processing system and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for organic liquid and organic vapor leaks. For the purpose of this condition, detection methods incorporating sight, sound and smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 days after it is detected. [40 CFR Part 60.502(j) and 40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
16. A log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
17. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit
18. The owner or operator shall maintain a log book that contain the following information: 1.) dates of leak inspections, 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection; 3.) findings, 4.) corrective action, 5.) repair methods applied in each attempt to repair the leak; 6.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 7.) the expected date of successful repair of the leak if the leak is not repaired within 15 days; 8.) the date of successful repair of the leak; and 9.) inspector name and signature. [District Rule 4624, 40 CFR Part 60.505 (c) and 40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
19. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

20. During source testing the loading rack's vapor collection and control system (VCCS) shall be tested at every loading position to demonstrate the pressure in the delivery tanks being loaded complies with the requirements specified in this permit. Compliance shall be determined by calibrating and installing a liquid manometer, magnehelic device, or other instrument demonstrated to be equivalent, capable of measuring up to 500 mm water gauge pressure with a precision of 2.5 mm water gauge, on the terminal's VCCS at a pressure tap as close as possible to the connection with the product tank truck. The highest instantaneous pressure measurement as well as all pressure measurements at 5 minute intervals during delivery vessel loading must be recorded. [District Rule 2520 and 40 CFR 60.503(d)] Federally Enforceable Through Title V Permit
21. Source testing to determine compliance with the emission rate and VOC destruction efficiency requirements of this permit shall be conducted at least once every 60 months. [District Rules 2201 and 4624] Federally Enforceable Through Title V Permit
22. Source testing shall be conducted using methods and procedures approved by District. The District must be notified 30 days prior to any compliance source testing and a pretest plan outlining the test methods and procedures shall be submitted for the District approval no later than 15 days prior to each test. [District Rule 1081] Federally Enforceable Through Title V Permit
23. Source testing shall be witnessed or authorized by District Personnel. [District Rule 1081] Federally Enforceable Through Title V Permit
24. VOC emissions from the vapor collection and control system shall be determined using 40 CFR 60.503 "Test Methods and Procedures" and EPA Reference Methods 2A, 2B, 25A, 25B, and ARB Method 422, or ARB Test Procedure TP-203.1. [District Rule 4624 and San Joaquin County Rule 412] Federally Enforceable Through Title V Permit
25. Source testing for VOC destruction efficiency shall be conducted utilizing EPA Method 18, EPA Method 25A or CARB Method 100. Alternative methods may be utilized provided they are previously approved by the District, in writing. [District Rules 2201 and 4102] Federally Enforceable Through Title V Permit
26. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit
27. A log of all breakdowns of the vapor recovery system indicating the times, dates and gallons processed during the breakdown periods shall be maintained on the premises at all times and shall be made available for District inspection upon request. [District Rule 2520] Federally Enforceable Through Title V Permit
28. A record of the daily quantity of gasoline loaded from the loading racks operating under Permits to Operate N-829-1 and N-829-2 shall be kept. [District Rules 2520, 4624] Federally Enforceable Through Title V Permit
29. A record of the cumulative annual quantity of gasoline loaded from the loading racks operating under Permits to Operate N-829-1 and N-829-2 shall be kept. The record shall be updated at least monthly. [District Rule 2520] Federally Enforceable Through Title V Permit
30. Documentation attesting to the vapor tightness of each truck loaded with gasoline shall be kept. The documentation file for each tank truck shall be updated at least once per year to reflect the current test results as determined by EPA method 27. [40 CFR Part 60.5059(a) and 40 CFR 63.11094(b)] Federally Enforceable Through Title V Permit
31. The semi-annual compliance report shall include each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR 63.11088(f)] Federally Enforceable Through Title V Permit
32. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rules 1070, 4624] Federally Enforceable Through Title V Permit

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San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-21-5

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

1,328,124 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#3302) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623, 5.1.1] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a fixed roof with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge. [40 CFR 60.112a(2) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
3. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal roof shall be floating on the liquid surface except during initial fill and when the storage vessel 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. Whenever the permittee intends to land the roof on it's legs, the permittee shall notify the APCO in writing at least five days prior to performing the work. [District Rule 4623, 5.3.1.3 and 5.4.3, 40 CFR 60.112a(2) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
4. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4653, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
5. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
6. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
7. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
8. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
9. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
10. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 5.4.1] Federally Enforceable Through Title V Permit
11. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4 and 5.4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

12. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623, 5.3.2.1.5 and 5.4.1] Federally Enforceable Through Title V Permit
13. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6 and 5.4.1] Federally Enforceable Through Title V Permit
14. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7 and 5.4.1] Federally Enforceable Through Title V Permit
15. All openings in the roof used for sampling and gauging shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak free, except when the device or appurtenance is in use for sampling or gauging. [District Rule 4623, 5.5.1] Federally Enforceable Through Title V Permit
16. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Method 21. Liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A reading in excess to 10,000 ppmv, as methane, above background, or dripping of organic liquid at a rate of more than 3 drops per minute, is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.11, 3.17, 3.18 and 6.4.8] Federally Enforceable Through Title V Permit
17. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.1.1 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
18. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, combination manway/vacuum breakers, and stub drains is to be 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. [District Rule 4623, 5.5.2.1.2] Federally Enforceable Through Title V Permit
19. Automatic bleeder vents shall be equipped with a gasket and shall 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. [District Rule 4623, 5.5.2.1.3] Federally Enforceable Through Title V Permit
20. Rim vents shall 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. [District Rule 4623, 5.5.2.1.4] Federally Enforceable Through Title V Permit
21. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, 5.5.2.1.5] Federally Enforceable Through Title V Permit
22. 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. The fabric sleeve must be impermeable. [District Rule 4623, 5.5.2.1.6] Federally Enforceable Through Title V Permit
23. All slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.4.1] Federally Enforceable Through Title V Permit
24. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall not exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit
25. The permittee shall notify the District in writing at least 30 days prior to conduct the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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26. For newly constructed, repaired, or rebuilt internal floating roof tanks, the permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 6.1.4.1 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
27. The owner or operator shall perform a monthly leak inspection of all equipment in gasoline service, as defined in section 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
28. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
29. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit
30. The owner or operator shall maintain a log book that contain the following information for a leak during during monthly inspection: 1.) equipment type and identification number; 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection (i.e. sight, sound, or smell); 3.) the date the leak was detected and the date of each attempt to repair the leak; 4.) repair methods applied in each attempt to repair the leak; 5.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 6) the expected date of successful repair of the leak if the leak is not repaired within 15 days; and 7.) the date of successful repair of the leak. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
31. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 6.1.4.2 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
32. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the vessel is emptied and degassed. 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 owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel. [40 CFR Part 63.11087(c)] Federally Enforceable Through Title V Permit
34. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

35. All covers, seals and lids covering openings in the roof used for sampling and gauging shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. If one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
36. The operator shall determine the presence of gas leaks using portable hydrocarbon detection instrument in accordance with EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
37. The operator shall maintain an inspection log containing the following: 1.) Type of component leaking; 2.) Date of leak detection, and method of detection; 3.) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this permit. [District Rule 4623, 6.1.4.3 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
39. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
41. The operator shall keep a record of liquids stored in each container, period of storage, and the maximum true vapor pressure of the liquid during the respective storage period. [40 CFR 60.115a(a)] Federally Enforceable Through Title V Permit
42. The permittee shall determine the maximum true vapor pressure of the stored organic liquid on a monthly basis, using the calculation methodology listed in Appendix B of District Rule 4623. The permittee shall keep a record of all reid vapor pressure measurements for the stored organic liquid and shall use the highest recorded reid vapor pressure of the month when determining the maximum true vapor pressure. The permittee shall keep a record of the actual storage temperature of the organic storage tank and shall use the highest temperature recorded of the month when determining the maximum true vapor pressure. [40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1.) Date of inspection and names and titles of company personnel doing the inspection; 2.) Tank identification number and Permit to Operate number; 3.) Measurements of the gaps between the tank shell and primary and secondary seals; 4.) Leak-free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in ppmv. 5.) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6.) Any corrective actions or repairs performed on the tank in order to comply with Rule 4623 and the date(s) such actions were taken. [District Rule 4623, 6.3.5 and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
45. The following test methods shall be used: ASTM Method D287 for determining API Gravity, ASTM Method D4057 sampling for API Gravity testing; ASTM D323 for determining RVP, and converting RVP to TVP at the tank's maximum organic liquid storage temperature; ARB Method 422 for determining exempt halogenated VOCs in gases; EPA Method 21 for measuring gas-leak concentration. Should the owner or operator wish to use test methods other than the ones mentioned in this condition, the methods must be approved by the District prior to its use. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
46. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 4623, 6.3 and 2520, 9.4.2] Federally Enforceable Through Title V Permit
47. There shall be no vapor space between the internal floating pan and the liquid surface. [District NSR Rule] Federally Enforceable Through Title V Permit
48. At least 95% of all hydrocarbon vapors generated during the storage and the working of the storage tank shall be prevented from entrainment into the atmosphere. [District NSR Rule] Federally Enforceable Through Title V Permit
49. The permittee shall maintain records sufficient to demonstrate compliance with the daily VOC emission limit. These records shall contain the calculated emission quantity as well as each process variable used in the respective calculations/modeling. [District Rule 2080] Federally Enforceable Through Title V Permit
50. The internal floating roof supports, manholes, automatic bleeder vents, rim vents, gauge wells, etc., shall be covered with foam seal in a manner which prevents any gap. [District NSR Rule] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-28-6

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

3,360,000 GALLON WELDED INTERNAL FLOATING ROOF STORAGE TANK (#80001) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623, 5.1.1] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a floating roof consisting of a pan type that is installed before December 20, 2001, pontoon-type, or double-deck type cover, that rests on the surface of the liquid contents and is equipped with a closure device between the tank shell and roof edge consisting of a primary seal and a secondary seal. [District Rule 4623, 5.3.1.1 and 5.3.1.2, 40 CFR 60.112a(2) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
3. The floating roof shall be floating on the surface of the stored liquid at all times (i.e., off the roof leg supports) except during the initial fill until the roof is lifted off the leg supports and when the tank is completely emptied and subsequently refilled. When the roof is resting on the leg supports the processes of filling or emptying and refilling the tank shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land the roof on its legs. [District Rule 4623, 5.3.1.3 and 5.4.3, 40 CFR 60.112a(2) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
4. Gaps between the tank shell and the primary seal shall not exceed 1 1/2 inches. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
5. The cumulative length of all gaps between the tank shell and the primary seal greater than 1/2 inch shall not exceed 10% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
6. The cumulative length of all primary seal gaps greater than 1/8 inch shall not exceed 30% of the circumference of the tank. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
7. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1 and 5.4.1] Federally Enforceable Through Title V Permit
8. No gap between the tank shell and the secondary seal shall exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
9. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2 and 5.4.1] Federally Enforceable Through Title V Permit
10. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 18 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3 and 5.4.1] Federally Enforceable Through Title V Permit
11. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4 and 5.4.1] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: NUSTAR TERMINALS OPS PARTNERSHIP LP

Location: 2941 NAVY DRIVE, STOCKTON, CA 95206

N-829-28-6 : Oct 29 2020 1:57PM -- HARADERJ

12. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623, 5.3.2.1.5 and 5.4.1] Federally Enforceable Through Title V Permit
13. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6 and 5.4.1] Federally Enforceable Through Title V Permit
14. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7 and 5.4.1] Federally Enforceable Through Title V Permit
15. All openings in the roof used for sampling and gauging shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak-free, except when the device or appurtenance is in use for sampling and gauging. [District Rule 4623, 5.5.2.1.2] Federally Enforceable Through Title V Permit
16. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Method 21. Liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A reading in excess to 10,000 ppmv, as methane, above background, or dripping of organic liquid at a rate of more than 3 drops per minute, is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.11, 3.17, 3.18 and 6.4.8] Federally Enforceable Through Title V Permit
17. Each opening in a non-contact internal floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.1.1 and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
18. Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, combination manway/vacuum breakers, and stub drains is to be 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. [District Rule 4623, 5.5.2.1.2] Federally Enforceable Through Title V Permit
19. Automatic bleeder vents shall be equipped with a gasket and shall 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. [District Rule 4623, 5.5.2.1.3] Federally Enforceable Through Title V Permit
20. Rim vents shall 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. [District Rule 4623, 5.5.2.1.4] Federally Enforceable Through Title V Permit
21. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The well shall have a slit fabric cover that covers at least 90% of the opening. The fabric cover must be impermeable. [District Rule 4623, 5.5.2.1.5] Federally Enforceable Through Title V Permit
22. 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. The fabric sleeve must be impermeable. [District Rule 4623, 5.5.2.1.6] Federally Enforceable Through Title V Permit
23. All slotted sampling or gauging wells, and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.4.1] Federally Enforceable Through Title V Permit
24. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall not exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit
25. The permittee shall notify the District in writing at least 30 days prior to conduct the visual inspection of the storage vessel, so the District can arrange an observer. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

26. For newly constructed, repaired, or rebuilt internal floating roof tanks, the permittee shall visually inspect the internal floating roof, and its appurtenant parts, fittings, etc. and measure the gaps of the primary seal and/or secondary seal prior to filling the tank. If holes, tears, or openings in the primary seal, the secondary seal, the seal fabric or defects in the internal floating roof or its appurtenant parts, components, fittings, etc., are found, they shall be repaired prior to filling the tank. [District Rule 4623, 6.1.4.1 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
27. The owner or operator shall perform a monthly leak inspection of all equipment in gasoline service, as defined in section 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
28. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
29. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit
30. The owner or operator shall maintain a log book that contain the following information for a leak during during monthly inspection: 1.) equipment type and identification number; 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection (i.e. sight, sound, or smell); 3.) the date the leak was detected and the date of each attempt to repair the leak; 4.) repair methods applied in each attempt to repair the leak; 5.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 6) the expected date of successful repair of the leak if the leak is not repaired within 15 days; and 7.) the date of successful repair of the leak. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
31. The permittee shall visually inspect, through the manholes, roof hatches, or other opening on the fixed roof, the internal floating roof and its appurtenant parts, fittings, etc., and the primary seal and/or secondary seal at least once every 12 months after the tank is initially filled with an organic liquid. There should be no visible organic liquid on the roof, tank walls, or anywhere. Other than the gap criteria specified by this rule, no holes, tears, or other openings are allowed that would permit the escape of vapors. Any defects found are violations of this rule. [District Rule 4623, 6.1.4.2 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
32. If any failure (i.e. visible organic liquid on the internal floating roof, tank walls or anywhere, holes or tears in the seal fabric) is detected during 12 month visual inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
33. The permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the vessel is emptied and degassed. 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 owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel. [40 CFR Part 63.11087(c)] Federally Enforceable Through Title V Permit
34. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

35. All covers, seals and lids covering openings in the roof used for sampling and gauging shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. If one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
36. The operator shall determine the presence of gas leaks using portable hydrocarbon detection instrument in accordance with EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
37. The operator shall maintain an inspection log containing the following: 1.) Type of component leaking; 2.) Date of leak detection, and method of detection; 3.) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. The permittee shall conduct actual gap measurements of the primary seal and/or secondary seal at least once every 60 months. Other than the gap criteria specified by this permit, no holes, tears, or other openings are allowed that would permit the escape of hydrocarbon vapors. Any defects found shall constitute a violation of this permit. [District Rule 4623, 6.1.4.3 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
39. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
41. The operator shall keep a record of liquids stored in each container, period of storage, and the maximum true vapor pressure of the liquid during the respective storage period. [40 CFR 60.115a(a)] Federally Enforceable Through Title V Permit
42. The permittee shall determine the maximum true vapor pressure of the stored organic liquid on a monthly basis, using the calculation methodology listed in Appendix B of District Rule 4623. The permittee shall keep a record of all reid vapor pressure measurements for the stored organic liquid and shall use the highest recorded reid vapor pressure of the month when determining the maximum true vapor pressure. The permittee shall keep a record of the actual storage temperature of the organic storage tank and shall use the highest temperature recorded of the month when determining the maximum true vapor pressure. [District Rule 4623 and 40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

43. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1.) Date of inspection and names and titles of company personnel doing the inspection; 2.) Tank identification number and Permit to Operate number; 3.) Measurements of the gaps between the tank shell and primary and secondary seals; 4.) Leak-free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in ppmv. 5.) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6.) Any corrective actions or repairs performed on the tank in order to comply with Rule 4623 and the date(s) such actions were taken. [District Rule 4623, 6.3.5 and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
44. The permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
45. The following test methods shall be used: ASTM Method D287 for determining API Gravity, ASTM Method D4057 sampling for API Gravity testing; ASTM D323 for determining RVP, and converting RVP to TVP at the tank's maximum organic liquid storage temperature; ARB Method 422 for determining exempt halogenated VOCs in gases; EPA Method 21 for measuring gas-leak concentration. Should the owner or operator wish to use test methods other than the ones mentioned in this condition, the methods must be approved by the District prior to its use. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
46. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 4623, 6.3 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

San Joaquin Valley

Air Pollution Control District

PERMIT UNIT: N-829-29-7

EXPIRATION DATE: 11/30/2020

EQUIPMENT DESCRIPTION:

3,360,000 GALLON WELDED EXTERNAL FLOATING ROOF STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE

PERMIT UNIT REQUIREMENTS

1. True vapor pressure of the organic liquid stored shall be less than 11 psia. [District Rule 4623, 5.1.1] Federally Enforceable Through Title V Permit
2. The tank shall be equipped with a floating roof consisting of a pan type that was installed before December 20, 2001, pontoon-type or double-deck-type cover which rests upon the surface of the liquid being stored and is equipped with a closure device between the tank shell and roof edge consisting of a primary and a secondary seal. [District Rule 4623, 5.3.1.1 and 5.3.1.2, 40 CFR 60.112a(a)(1) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
3. Roof shall be floating on the liquid (i.e., off the roof leg supports) at all times except during initial fill and when tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible. Whenever the permittee intends to land the roof on its legs, the permittee shall notify the APCO in writing at least five calendar days prior to performing the work. The tank must be in compliance with this rule before it may land on its legs. [District Rule 4623, 5.3.1.3, 40 CFR 60.112a(a)(1) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
4. Primary seal (lower seal) shall be a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. [40 CFR 60.112a(a)(1)(i) and 40 CFR 63.11087(a)] Federally Enforceable Through Title V Permit
5. Accumulated area of gaps between tank wall and primary seal shall not exceed: 1) 10.0 in² per foot of tank diameter and the width of any portion of any gap shall not exceed 1-1/2 inch, for a metallic shoe seal or a liquid-mounted seal; 2) 1.0 in² per foot of tank diameter and the width of any portion of any gap shall not exceed 1/2 inch for a vapor mounted seal. [40 CFR 60.112a(a)(1)(i)(A) & (B), District Rule 4623, 5.3.2.1.1 and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
6. The cumulative length of all gaps between the tank shell and the primary seal: 1) Greater than one-half (1/2) inch shall not exceed 10 percent of the circumference of the tank; and 2) Greater than one-eighth (1/8) inch shall not exceed 30 percent of the circumference of the tank. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
7. No continuous gap in the primary seal greater than 1/8 inch wide shall exceed 10% of the tank circumference. [District Rule 4623, 5.3.2.1.1] Federally Enforceable Through Title V Permit
8. If the secondary seal is used in combination with a metallic shoe or liquid-mounted primary seal, accumulated area of gaps between tank wall and the secondary seal shall not exceed 1.0 in² per foot of tank diameter and the width of any portion of any gap shall not exceed 1/2 inch. [District Rule 4623, 5.3.2.1.2, 40 CFR 60.112a(a)(1)(i)(B) and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
9. The cumulative length of all gaps between the tank shell and the secondary seal, greater than 1/8 inch shall not exceed 5% of the tank circumference. [District Rule 4623, 5.3.2.1.2] Federally Enforceable Through Title V Permit
10. The metallic shoe-type seal shall be installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 24 inches above the stored liquid surface. [District Rule 4623, 5.3.2.1.3, 40 CFR 60.112a(a)(1)(i)(C) and 40 CFR Part 63.11087(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate.

11. The geometry of the metallic-shoe type seal shall be such that the maximum gap between the shoe and the tank shell shall be no greater than 3 inches for a length of at least 18 inches in the vertical plane above the liquid. [District Rule 4623, 5.3.2.1.4] Federally Enforceable Through Title V Permit
12. There shall be no holes, tears, or openings in the secondary seal or in the primary seal envelope that surrounds the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. [District Rule 4623, 5.3.2.1.5, 40 CFR 60.112a(a)(1)(i)(D), and 40 CFR 60.112a(a)(1)(ii)(B)] Federally Enforceable Through Title V Permit
13. The secondary seal shall allow easy insertion of probes of up to 1 1/2 inches in width in order to measure gaps in the primary seal. [District Rule 4623, 5.3.2.1.6] Federally Enforceable Through Title V Permit
14. The secondary seal shall extend from the roof to the tank shell and shall not be attached to the primary seal. [District Rule 4623, 5.3.2.1.7] Federally Enforceable Through Title V Permit
15. All openings in the roof used for sampling and gauging shall provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank and shall be equipped with a cover, seal or lid that shall be in a closed position at all times, with no visible gaps and be leak-free, except when the device or appurtenance is in use. [District Rule 4623, 5.5.1 and 40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit
16. A leak-free condition is defined as a condition without a gas leak or a liquid leak. A gas leak is defined as a reading in excess of 10,000 parts per million by volume (ppmv), as methane, above background on a portable hydrocarbon detection instrument that is calibrated with methane in accordance with the procedures specified in EPA Method 21. Liquid leak is defined as the dripping of organic liquid at a rate of more than 3 drops per minute. A reading in excess to 10,000 ppmv, as methane, above background, or dripping of organic liquid at a rate of more than 3 drops per minute, is a violation of this permit and Rule 4623 and shall be reported as a deviation. [District Rule 4623, 3.11, 3.17, 3.18 and 6.4.8] Federally Enforceable Through Title V Permit
17. Each opening in the roof, except for automatic bleeder vents, rim vents, and pressure relief vents, in a non-contact external floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.2.1, 40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit
18. Except for automatic bleeder vents and rim vents, roof drains, and leg sleeves, each opening in the roof shall be equipped with a gasketed cover, seal, or lid that shall be maintained in a closed position at all times (i.e., no visible gap) except when in actual use. [District Rule 4623, 5.5.2.2.2] Federally Enforceable Through Title V Permit
19. Automatic bleeder vents shall be equipped with a gasket and shall 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. [District Rule 4623, 5.5.2.2.3 and 40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit
20. Rim vents shall be equipped with a gasket and shall be set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting. [District Rule 4623, 5.5.2.2.4 and 40 CFR 60.112a(a)(1)(iii)] Federally Enforceable Through Title V Permit
21. Each emergency roof drain shall be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening. The fabric cover must be impermeable if the liquid is drained into the contents of the tanks. [District Rule 4623, 5.5.2.2.5 and 40 CFR 60.112a(a)(1)(iv)] Federally Enforceable Through Title V Permit
22. External floating roof legs shall be equipped with vapor socks or vapor barriers in order to maintain a leak-free condition so as to prevent VOC emissions from escaping through the roof leg opening. [District Rule 4623, 5.5.2.2.6] Federally Enforceable Through Title V Permit
23. All slotted sampling and gauging wells and similar fixed projections through the floating roof shall provide a projection below the liquid surface. [District Rule 4623, 5.5.2.4.1] Federally Enforceable Through Title V Permit
24. The slotted guidepole well on the external floating roof shall be equipped with the following: a sliding cover, a well gasket, a pole sleeve, a pole wiper, and an internal float and float wiper designed to minimize the gap between the float and the well, and provided the gap shall not exceed 1/8 inch; or shall be equipped with a well gasket, a zero gap pole wiper seal and a pole sleeve that projects below the liquid surface. [District Rule 4623, 5.5.2.4.2] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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25. The gap between the pole wiper and the slotted guidepole shall be added to the gaps measured to determine compliance with the secondary seal requirement, and in no case shall exceed 1/8 inch. [District Rule 4623, 5.5.2.4.3] Federally Enforceable Through Title V Permit
26. The permittee shall make the primary seal envelope available for unobstructed inspection by the APCO on an annual basis at locations selected along its circumference at random by the APCO. A minimum of eight locations shall be made available; in all other cases, a minimum of four locations shall be made available. If the APCO suspects a violation may exist the APCO may require such further unobstructed inspection of the primary seal as may be necessary to determine the seal condition for its entire circumference. [District Rule 4623, 6.1.1] Federally Enforceable Through Title V Permit
27. The operator shall perform gap measurements on primary and secondary seals within 60 days of the initial fill with petroleum liquid and at least once every year thereafter to determine compliance with the requirements of Rule 4623. The actual gap measurements of the floating roof primary and secondary seals shall be recorded. The inspection results shall be submitted to the APCO as specified in Section 6.3.5. [District Rule 4623, 6.1.3.1, 40 CFR 60.113a(a)(1)(i)(B) and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
28. If unit is out of service for a period of one year or more, subsequent refilling with volatile organic liquid (VOL) shall be considered initial fill in accordance with the conditions of this permit. [40 CFR 60.113a(a)(1)(i)(C) and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
29. The permittee shall inspect the primary and secondary seals for compliance with the requirements of Rule 4623 every time this tank is emptied or degassed. Actual gap measurements shall be performed when the liquid level is static but not more than 24 hours after the tank roof is re-floated. [District Rule 4623, 6.1.3.2] Federally Enforceable Through Title V Permit
30. If primary or secondary seal gap width/accumulated area and minimum vertical distance for one end of the mechanical shoe do not meet the requirements in this permit during 12 month inspection, the permittee shall repair the items or empty and remove the storage vessel from service within 45 days. If the detected failure 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 APCO in the inspection report. Such a request must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit
31. The owner or operator shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed. If the external 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, the owner or operator shall repair the items as necessary so that none of the conditions specified mentioned in this condition exist before filling or refilling the storage vessel. [40 CFR 60.11087(c)] Federally Enforceable Through Title V Permit
32. The owner or operator shall perform a monthly leak inspection of all equipment in gasoline service, as defined in section 63.11100. For this inspection, detection methods incorporating sight, sound, and smell are acceptable. [40 CFR Part 63.11089(a)] Federally Enforceable Through Title V Permit
33. For monthly leak inspection, a log book shall be used and shall be signed by the owner or operator at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the facility. [40 CFR Part 63.11089(b)] Federally Enforceable Through Title V Permit
34. Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 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. Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The owner or operator shall provide in the semiannual report the reason(s) why the repair was not feasible and the date each repair was completed. [40 CFR Part 63.11089(d)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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35. The owner or operator shall maintain a log book that contain the following information for a leak during during monthly inspection: 1.) equipment type and identification number; 2.) the nature of the leak (i.e. vapor or liquid) and the method of detection (i.e. sight, sound, or smell); 3.) the date the leak was detected and the date of each attempt to repair the leak; 4.) repair methods applied in each attempt to repair the leak; 5.) repair delayed and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; 6) the expected date of successful repair of the leak if the leak is not repaired within 15 days; and 7.) the date of successful repair of the leak. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
36. The owner or operator shall report the number of equipment leaks not repaired within 15 days after detection in a semi-annual report. [40 CFR 63.11089(g)] Federally Enforceable Through Title V Permit
37. All covers, seals and lids covering openings in the roof used for sampling and gauging shall be inspected annually by the facility operator to ensure compliance with the provisions of this permit. If one or more of the components are found to leak during an annual inspection, the inspection frequency for that component type shall be changed from annual to quarterly. If none of the components of that type are subsequently found to be leaking during five consecutive inspections, the inspection frequency may be changed from quarterly to annual. Components located in inaccessible (over 15 feet above ground when access is required from the ground or over 6 feet away from a platform when access is required from the platform) locations shall be inspected at least annually and components located in unsafe areas shall be inspected and repaired upon detection. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
38. The operator shall determine the presence of gas leaks using portable hydrocarbon detection instrument in accordance with EPA Method 21. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21 using the following calibration gases: 1.) Zero air (less than 10 ppm of hydrocarbon in air); and 2.) A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
39. The operator shall maintain an inspection log containing the following: 1.) Type of component leaking; 2.) Date of leak detection, and method of detection; 3.) Date and emission level of recheck after leak is repaired. Leaks over 10,000 ppmv shall be reported as a deviation. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
40. Permittee shall conduct true vapor pressure (TVP) testing of the organic liquid whenever there is a change in the source or type of organic liquid stored in this tank. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
41. As used in this permit, the term "source or type" shall mean liquids with similar characteristics. The operator shall maintain records of API gravity of petroleum liquids stored in this unit to determine which are from common source. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
42. Operator shall determine gap widths in the primary and secondary seals using the following procedure: 1) Measure seal gaps, at one or more floating roof levels when the roof is floating off leg supports; 2) Measure seal gaps around entire circumference of the tank in each place where a one-eighth (1/8) inch diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location; 3), Total surface area of each gap shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; 4) Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank. [40 CFR 60.113a(a)(1)(ii) and (iii)] Federally Enforceable Through Title V Permit
43. Operator shall record the vessel on which the measurement was performed, date of the seal gap measurement, and raw data obtained in the measurement process in accordance with the conditions of this permit. [40 CFR 60.113a(a)(1)(i)(D) and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
44. The permittee shall notify the District in writing at least 30 days in advance of visual inspection or any gap measurement required by this permit, so the District can arrange an observer. [40 CFR 60.113a(a)(1)(iv) and 40 CFR 63.11087(c)] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE

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45. If the accumulated area of gaps or gap width exceed limits, operator shall submit a report to the APCO within 30 days of the date of measurement. Report should include identification of the vessel, reason vessel did not meet the specifications, and a description of the actions necessary to bring the storage vessel into compliance. [40 CFR 60.113a(a)(1)(i)(E) and 40 CFR 63.11087(e)] Federally Enforceable Through Title V Permit
46. The operator shall keep a record of liquids stored in each container, period of storage, and the maximum true vapor pressure of the liquid during the respective storage period. [40 CFR 60.115a(a)] Federally Enforceable Through Title V Permit
47. The permittee shall determine the maximum true vapor pressure of the stored organic liquid on a monthly basis, using the calculation methodology listed in Appendix B of District Rule 4623. The permittee shall keep a record of all Reid vapor pressure measurements for the stored organic liquid and shall use the highest recorded Reid vapor pressure of the month when determining the maximum true vapor pressure. The permittee shall keep a record of the actual storage temperature of the organic storage tank and shall use the highest temperature recorded of the month when determining the maximum true vapor pressure. [Rule 4623 and 40 CFR 60.115a(b)] Federally Enforceable Through Title V Permit
48. The permittee shall submit the reports of the floating roof tank inspections to the APCO within five calendar days after the completion of the inspection only for those tanks that failed to meet the applicable requirements of Rule 4623, Sections 5.2 through 5.5. The inspection report for tanks that have been determined to be in compliance with the requirements of Sections 5.2 through 5.5 need not be submitted to the APCO, but the inspection report shall be kept on-site and made available upon request by the APCO. The inspection report shall contain all necessary information to demonstrate compliance with the provisions of this rule, including the following: 1.) Date of inspection and names and titles of company personnel doing the inspection; 2.) Tank identification number and Permit to Operate number; 3.) Measurements of the gaps between the tank shell and primary and secondary seals; 4.) Leak-free status of the tank and floating roof deck fittings. Records of the leak-free status shall include the vapor concentration values measured in ppmv. 5.) Data, supported by calculations, demonstrating compliance with the requirements specified in Sections 5.3, 5.4, 5.5.2.3.3, 5.5.2.4.2, and 5.5.2.4.3 of Rule 4623. 6.) Any corrective actions or repairs performed on the tank in order to comply with Rule 4623 and the date(s) such actions were taken. [District Rule 4623, 6.3.5] Federally Enforceable Through Title V Permit
49. The permittee shall maintain the records of the internal floating roof landing activities that are performed pursuant to Rule 4623, Sections 5.3.1.3 and 5.4.3. The records shall include information on the true vapor pressure (TVP), API gravity, storage temperature, type of organic liquid stored in the tank, the purpose of landing the roof on its legs, the date of roof landing, duration the roof was on its legs, the level or height at which the tank roof was set to land on its legs, and the lowest liquid level in the tank. [District Rule 4623, 6.3.7] Federally Enforceable Through Title V Permit
50. The following test methods shall be used: ASTM Method D287 for determining API Gravity, ASTM Method D4057 sampling for API Gravity testing; ASTM D323 for determining RVP, and converting RVP to TVP at the tank's maximum organic liquid storage temperature; ARB Method 422 for determining exempt halogenated VOCs in gases; EPA Method 21 for measuring gas-leak concentration. Should the owner or operator wish to use test methods other than the ones mentioned in this condition, the methods must be approved by the District prior to its use. [District Rule 4623, 6.4] Federally Enforceable Through Title V Permit
51. The operator shall maintain all records of required monitoring data and support information for inspection at any time for a period of five years. [District Rules 4623, 6.3 and 2520, 9.4.2] Federally Enforceable Through Title V Permit

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APPENDIX C
EPA's Source Determinations Guidance Document



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

April 30, 2018

OFFICE OF
AIR AND RADIATION

The Honorable Patrick McDonnell
Secretary of the Pennsylvania Department
of Environmental Protection
Rachel Carson Office Building
Post Box 2063
Harrisburg, Pennsylvania 17105

Dear Mr. McDonnell:

On February 14, 2018, the Pennsylvania Department of Environmental Protection (PADEP) requested that the U.S. Environmental Protection Agency review a document submitted on behalf of Meadowbrook Energy LLC (Meadowbrook) concerning whether emissions from a biogas processing facility under development by Meadowbrook should be aggregated with an existing landfill owned by Keystone Sanitary Landfill, Inc. (KSL) for Clean Air Act (CAA) permitting purposes.

EPA understands this request to relate to the question of whether these two entities should be considered part of the same "major source" under the operating permit program under title V of the CAA, and/or part of the same "stationary source" for the New Source Review (NSR) pre-construction permit programs under title I of the CAA.¹ EPA commonly refers to these types of questions as "source determinations." Under the federal rules governing these permitting programs, entities may be considered part of the same "stationary source" or "major source"² if they (1) belong to the same industrial grouping; (2) are located on one or more contiguous or adjacent properties; and (3) are under the control of the same person (or persons under common control).³ Meadowbrook's analysis, as supplemented by additional analysis dated March 16, 2018, primarily asserts that the Meadowbrook and KSL facilities are not under "common control."

¹ Although it appears that Meadowbrook's analysis only directly implicates title V permitting, the discussion in this letter and the Attachment is relevant to NSR permitting actions as well. In the NSR regulations, the definitions of "stationary source" use the term "building, structure, facility, or installation," which is separately defined.

² References to "major source" in this letter or Attachment are intended to refer only to the portions of the title V definitions of "major source" that relate to which activities should be considered part of the same "major source."

³ See 42 U.S.C. § 7661(2) (title V statutory definition); 40 C.F.R. §§ 70.2 & 71.2 (title V regulations); 40 C.F.R. §§ 52.21(b)(5) & (6), 51.165(a)(1)(i) & (ii), and 51.166(b)(5) & (6) (NSR regulations). PADEP's permitting regulations either incorporate EPA's prevention of significant deterioration (PSD) regulations or contain similar provisions. See, e.g., 25 Pa. Code 127.83 (PSD regulations incorporating EPA's regulations in 40 C.F.R. § 52.21);

As described more fully in the Attachment below, EPA has long recognized that common control determinations should be made on a case-by-case basis. In making such determinations, and in offering its views to other permitting authorities, EPA has previously interpreted the term "common control" in a manner that may support viewing the Meadowbrook and KSL facilities as a single "stationary source" or "major source" by virtue of the support or dependency relationships between the two entities that might be viewed as providing each entity with some degree of influence over the operations of the other.

However, the potential for that interpretation to produce inconsistent and impractical outcomes in this and other cases has caused EPA to re-evaluate and revise its interpretation of the term "common control" in the title V and NSR regulations. For the reasons discussed further in the Attachment, the agency believes clarity and consistency can be restored to source determinations if the assessment of "control" for title V and NSR permitting purposes focuses on the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements. Under this revised interpretation, EPA agrees with Meadowbrook that PADEP may conclude that the Meadowbrook and KSL facilities are not under common control and thus not a single "stationary source" or "major source" for title V or NSR purposes. However, given that Pennsylvania's title V and NSR programs have been approved by EPA, PADEP has primary responsibility to make source determinations involving the Meadowbrook and/or KSL facilities based on its EPA-approved rules. EPA believes that the following Attachment, in explaining EPA's revised interpretation and other factors that EPA recommends considering when determining if there is "common control," should be helpful to PADEP as it makes its final permitting decision with respect to Meadowbrook.

If you have any additional questions, please contact Anna Marie Wood in the Office of Air Quality Planning and Standards at (919) 541-3604 or wood.anna@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'W. L. Wehrum', with a long horizontal flourish extending to the right.

William L. Wehrum
Assistant Administrator

Attachment

cc: Krishnan Ramamurthy, Director of Air Quality, PADEP
Mark Wejkszner, Air Quality Program Manager, PADEP, Region 2

see also 25 Pa. Code 121.1 (general air quality definition of "facility"); 25 Pa. Code 127.204(a) (nonattainment NSR regulations discussing aggregation).

**Letter: William L. Wehrum, Assistant Administrator, Office of Air and Radiation,
U.S. Environmental Protection Agency, to the Honorable Patrick McDonnell, Secretary,
Pennsylvania Department of Environmental Protection (April 30, 2018)**

Attachment

I. Meadowbrook and KSL Background

Meadowbrook Energy LLC (Meadowbrook) has indicated that it plans to construct a biogas processing facility that will convert landfill gas (LFG) and other potential biogas feedstocks into pipeline-quality natural gas for injection into the interstate natural gas pipeline system, to be used as a transportation fuel. Meadowbrook has entered into an agreement with Keystone Sanitary Landfill, Inc. (KSL),⁴ whereby KSL will deliver LFG to Meadowbrook via a pipeline running between the two facilities. This pipeline will be owned by KSL up to a demarcation point, at which point the remainder of the pipeline will be separately owned by Meadowbrook.

Meadowbrook explains that KSL controls its own landfill gas collection activities and delivers untreated landfill gas to the demarcation point. After the demarcation point, Meadowbrook conducts all processing of the gas necessary to create the renewable natural gas product that it injects into the pipeline for market sale. Meadowbrook represents that the two entities have no cross-ownership or direct control over operations at the other facility. In other words, each entity has no ability to control, operate, close, or restrict the use of the other's facility.⁵ Meadowbrook characterizes the relationship between the two facilities as arms-length arrangements between independent commercial entities. Meadowbrook therefore believes that Meadowbrook and KSL should not be considered under "common control," and thus their facilities should not be considered a single source.

More specifically, Meadowbrook maintains that KSL is not dependent on Meadowbrook for compliance with any portion of the requirements associated with the control of the emission of KSL's LFG. Meadowbrook indicates that KSL will retain full responsibility for compliance with all air pollutant control obligations (*e.g.*, New Source Performance Standards (NSPS) Subpart WWW requirements for LFG) until the LFG is delivered to the demarcation point (*i.e.*, until the gas is delivered to Meadowbrook). If Meadowbrook cannot accept LFG, shutoff valves in the pipeline between LFG and Meadowbrook will redirect all of the LFG to KSL's flares for

⁴ Meadowbrook indicates that this agreement is subject to future revisions. The information provided to PADEP by Meadowbrook in its initial draft analysis and its updated March 16, 2018, analysis apparently reflects the mutual understandings of Meadowbrook and KSL as of the date of these analyses.

⁵ Meadowbrook acknowledges that Meadowbrook will provide either labor (likely through a third-party) or financing associated with modifying or optimizing KSL's landfill gas collection system in order to set up the pipeline between Meadowbrook and KSL. However, Meadowbrook claims that KSL would direct any Meadowbrook personnel, or third-party personnel provided by Meadowbrook, in these efforts, and that Meadowbrook would not have any rights to direct or control the operation of the LFG collection system. Additionally, Meadowbrook indicates that it is currently considering the possibility of interconnecting with KSL's leachate, condensate, and wastewater treatment systems to dispose of certain Meadowbrook products at market prices.

destruction. KSL is required to construct and maintain sufficient flare capacity to destroy 100% of KSL's LFG, and Meadowbrook states this flare capacity exists and is currently permitted.⁶ Thus, Meadowbrook concludes that even the closure of the Meadowbrook facility would not have environmental consequences to KSL's operations, nor would it affect the ability of KSL to comply with environmental regulatory requirements related to its LFG.

Meadowbrook also maintains that it is not dependent on KSL for its supply of LFG. Meadowbrook acknowledges that it has the right to purchase, and expects to purchase, all of the LFG produced by KSL to serve as a feedstock, and that Meadowbrook will rely on KSL for its first supply of LFG to produce a natural gas product for commerce. However, Meadowbrook represents that it is only required to accept as much LFG as Meadowbrook can process. Meadowbrook also indicates that its processing capacity exceeds KSL's LFG production, and that Meadowbrook is actively seeking additional suppliers of LFG and other types of biogas in order to serve as a regional refining and processing facility. Moreover, Meadowbrook claims that even if KSL were to shut down, and even if this resulted in the eventual shutdown of Meadowbrook itself, this shutdown would have no environmental consequences. Based on this, Meadowbrook asserts that it retains sole responsibility for environmental regulatory requirements (related to LFG, or otherwise) arising after the demarcation point, and that its air emissions are in no way influenced by KSL's landfill operations.

Meadowbrook emphasizes the separate compliance responsibilities of each entity, and the fact that neither entity would be able to operate the other's facility to ensure that the other's facility complies with relevant environmental requirements. First, Meadowbrook briefly discusses its own practical difficulties in having to assure its customers or potential suppliers that it is not liable for KSL's operations. Additionally, Meadowbrook highlights practical difficulties with aggregating the two entities for permitting purposes: specifically, difficulties with including Meadowbrook's operations within KSL's existing title V permit for title V compliance certification purposes. Meadowbrook notes that, if Meadowbrook's operations were incorporated into KSL's existing title V permit, KSL's responsible official would be required to certify the accuracy of such a permit modification application with respect to Meadowbrook's operations, as well as certify Meadowbrook's compliance with relevant requirements. *See* 25 Pa. Code §§ 127.402(d), 127.205(2).⁷ Meadowbrook argues that the responsible official at KSL would have no way to accurately certify permit applications pertaining to Meadowbrook's facility, nor could KSL's responsible official certify Meadowbrook's compliance, because KSL has no information about or access to proprietary equipment or operations at the Meadowbrook facility. Thus, Meadowbrook argues that it would be unrealistic to expect that KSL could effectively discharge KSL's title V compliance certification requirements (with the potential for criminal liability) if the two sources were aggregated.

⁶ Meadowbrook acknowledges that KSL's title V permit will likely be modified to add an option to divert LFG to Meadowbrook, but claims that this will not affect KSL's ability to maintain title V compliance (presumably, compliance with subpart WWW requirements) through use of its existing LFG collection system and flares.

⁷ Meadowbrook also references KSL's obligation to certify ongoing compliance and suggests that KSL could be held liable for Meadowbrook's operations. *See* 25 Pa. Code §§ 127.511(c)(1), 127.411(a)(1).

II. Background on EPA Interpretations of Common Control

When determining which pollutant-emitting activities should be considered part of the same “major source” under the title V operating permit program, and/or part of the same “stationary source” under the New Source Review (NSR) program, permitting authorities should assess the three factors contained in EPA’s title V and NSR regulations—same industrial grouping, location on contiguous or adjacent property, and common control—on a case-by-case basis. In the title V regulations, these criteria are reflected in the definition of “major source.” 40 C.F.R. §§ 70.2 & 71.2. The NSR regulations define a “stationary source” as a “building, structure, facility, or installation” and then provide a separate definition for that phrase which reflects these three criteria. 40 C.F.R. §§ 52.21(b)(5) & (6), 51.165(a)(1)(i) & (ii), and 51.166(b)(5) & (6).

In the original promulgation of these three factors in the NSR program regulations, EPA was mindful of a decision from the U.S. Court of Appeals for the District of Columbia Circuit holding that the “source” for NSR permitting purposes should comport with the “common sense notion of a plant.” 45 Fed. Reg. 52676, 52694 (Aug. 7, 1980) (citing *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979)). When EPA first established the current three-part test in the Prevention of Significant Deterioration (PSD) NSR rules adopted in 1980, the agency explained that this test would comply with *Alabama Power* by reasonably carrying out the purposes of the PSD program, approximating a “common sense notion of a plant,” and avoiding the aggregation of pollutant-emitting activities that would not fit within the ordinary meaning of “building,” “structure,” “facility,” or “installation.” 45 Fed. Reg. at 52694–95. When EPA subsequently promulgated the title V definitions for Part 71 using the same three criteria, the agency said that it intended these provisions to be consistent with the language and application of the PSD definitions. 61 Fed. Reg. 34202, 34210 (July 1, 1996).

Neither the Clean Air Act (CAA), EPA’s regulations, nor Pennsylvania Department of Environmental Protection’s (PADEP’s) regulations define “common control.” Acknowledging that “[c]ontrol can be a difficult factual determination, involving the power of one business entity to affect the construction decisions or pollution control decisions of another business entity,” EPA has long recognized that common control determinations should be made on a case-by-case basis. 45 Fed. Reg. 59874, 59878 (September 11, 1980).

In an early action implementing the Nonattainment NSR program, EPA explained that it would be guided by a definition of control established by the Securities and Exchange Commission (SEC), which states the following: “the possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person (or organization or association) whether through the ownership of voting shares, contract, or otherwise.” 45 Fed. Reg. at 59878 (quoting 17 C.F.R. § 210.1-02(g)).⁸ In a 1996 memorandum concerning source determinations on Federal military installations, EPA further explained:

⁸ EPA has also pointed to a definition of “control” found in Webster’s Dictionary, including “to exercise restraining or directing influence over,” “to have power over,” “power or authority to guide or manage,” and “the regulation of economic activity.” Letter from William A. Spratlin, Director, Air, RCRA, and Toxics Division, EPA Region 7, to Peter R. Hamlin, Chief, Air Quality Bureau, Iowa Department of Natural Resources (September 18, 1995) (the Spratlin Letter).

In general, the controlling entity is the highest authority that exercises restraining or directing influence over a source's economic or other relevant, pollutant-emitting activities. In considering interactions among facilities, what must be determined is who has the power of authority to guide, manage, or regulate the pollutant-emitting activities of those facilities, including "the power to make or veto decisions to implement major emission-control measures" or to influence production levels or compliance with environmental regulations.⁹

In other guidance documents and letters, EPA has identified a number of factors that should be considered when assessing whether two entities are under common control, including but not limited to shared workforces, shared management, shared administrative functions, shared equipment, shared intermediates or byproducts, shared pollution control responsibilities, and support/dependency relationships.¹⁰ In the discussion that follows, we will refer to this as the "multi-factor" approach of evaluating common control.

Regarding the support/dependency relationship factor, in several case-specific source determinations, EPA relied upon the presence of support or dependency relationships between two or more entities that resulted in one entity either directing or influencing the operations of another entity.¹¹ These situations often involved a primary facility that was wholly or partially dependent on a supporting facility for a critical aspect of its operations, such as the supply of raw materials. These relationships were often characterized by mutually beneficial contractual arrangements, including output contracts (where one entity was obligated to purchase all, or a portion, of another entity's output) and requirement contracts (where one entity was obligated to produce all, or a portion, of a product that another entity requires). As a result of these relationships, in certain cases EPA has found common control due to only the influence that these economically or operationally interconnected entities exert (or have the ability to exert) on one another (*e.g.*, the ability to influence production levels).

⁹ Memorandum from John S. Seitz, Director, OAQPS, to EPA Regional Offices, Major Source Determinations for Military Installations under the Air Toxics, New Source Review, and Title V Operating Permit Programs of the Clean Air Act, 9–10 (August 2, 1996) (the Seitz Memorandum) (citation omitted). Although this memorandum specifically concerned military installations, many of the statements contained therein are illustrative of EPA's past common control interpretations and policies more broadly.

¹⁰ See, *e.g.*, Spratlin Letter at 1–2. Other EPA guidance and correspondence regarding common control can be found at: <https://www.epa.gov/title-v-operating-permits/title-v-operating-permit-policy-and-guidance-document-index> and <https://www.epa.gov/nsr/new-source-review-policy-and-guidance-document-index>.

¹¹ See, *e.g.*, Letter from Kathleen Cox, Associate Director, Office of Permits & Air Toxics, EPA Region 3 to Troy D. Breathwaite, Air Permits Manager, Virginia Department of Environmental Quality, Re: GPC/SPSA-Suffolk/BASF (January 10, 2012); Letter from Gregg M. Worley, Chief, Air Permits Section, EPA Region 4, to James Capp, Chief, Air Protection Branch, Georgia Department of Natural Resources, Re: PowerSecure/FEMC/Houston County Landfill (December 16, 2011); Letter from Richard R. Long, Director, Air Program, EPA Region 8, to Julie Wrend, Legal Administrator, Air Pollution Control Division, Colorado Department of Public Health and Environment, Re: TriGen/Coors (November 12, 1998); see also Seitz Memorandum at 10–13 (discussing control via leases and contract-for-service relationships where a supporting entity is integral to or contributes to the operations of another entity).

III. Need for Revision to EPA's Approach to Common Control Assessments

These latter precedents might be construed to suggest that EPA and PADEP should consider Meadowbrook and KSL to be under common control because of two elements of the relationship between these entities, both related to the support/dependency concept. First, the fact that KSL plans to dispose of its LFG by sending it to Meadowbrook via pipeline indicates that KSL will, in most circumstances, effectively rely on Meadowbrook as the mechanism by which it controls its LFG emissions in order to comply with Subpart WWW NSPS requirements applicable to the landfill. Second, the fact that KSL is expected to supply Meadowbrook with a potentially large proportion of the LFG that Meadowbrook processes implies that KSL could influence production levels at Meadowbrook, and thus, to some extent, Meadowbrook's emissions resulting from processing KSL's LFG. If Meadowbrook and KSL were determined to be under common control based on these facts, they would then be treated as a single source for title V and NSR purposes.¹²

On the other hand, the reasoning of other EPA source determinations involving similar facts could be followed to support the contrary conclusion that Meadowbrook and KSL are not under common control. Using the multi-factor approach to evaluating common control, one could weigh more heavily the fact that neither facility is entirely dependent on the other for operation.¹³ KSL can control its LFG emissions via flaring without Meadowbrook, and Meadowbrook plans to receive gas from other entities. Additionally, Meadowbrook and KSL do not share workforces, management, administrative functions, equipment, or pollution control responsibilities. Under the multi-factor approach, these considerations suggest a lack of control.

Thus, during EPA's review of Meadowbrook's request, it became clear that the large number of different factual considerations implicated by prior EPA common control determinations, in addition to the agency's historically broad view of the types of relationships that can establish control (*e.g.*, support/dependency), has resulted in the potential for inconsistent outcomes in source determinations and an overall lack of clarity and certainty for sources and permitting authorities. Additionally, this particular scenario demonstrates practical difficulties that could result from considering these operations to be a single source, including the potential for inequitable outcomes.¹⁴ Moreover, it was not obvious that treating Meadowbrook and KSL as a single source would reflect a "common sense notion of a plant." The potential for inconsistent outcomes under EPA's broad-ranging prior interpretations, as well as these other concerns regarding the facts at hand, have prompted EPA to reevaluate and narrow the agency's interpretation of "common control." The next section explains EPA's narrowed interpretation

¹² In its March 16, 2018, submission, Meadowbrook states that its facility will be located on a property contiguous to the KSL landfill, and that the two operations will share the same two-digit SIC code. Although Meadowbrook suggests that "shared two-digit SIC codes are unlikely to contribute any meaningful information to any aggregation analysis," this is nonetheless a criterion currently included in EPA's source determination rules.

¹³ See Letter from Judith M. Katz, Director, Air Protection Division, EPA Region 3, to Gary E. Graham, Environmental Engineer, Commonwealth of Virginia Department of Environmental Quality, Re: Maplewood/INGENCO (May 1, 2002) (Maplewood/INGENCO letter).

¹⁴ In particular, the agency's prior approach could lead to the impractical and potentially inequitable result of holding otherwise separate business entities responsible for each other's actions, even if they do not have the power or authority to dictate such actions.

and other considerations EPA currently views as most relevant to determining common control. The last section applies these principles in an examination of whether the Meadowbrook and KSL facilities are under common control.

IV. Refining EPA’s Interpretation and Policy Concerning “Common Control”

Consistent with EPA’s longstanding practice and view, determinations of common control are fact-specific and should continue to be made by permitting authorities on a case-by-case basis. However, after re-evaluating the concept of common control, EPA believes it should realign its approach to common control determinations in order to better reflect a “common sense notion of a plant,” and to minimize the potential for entities to be held responsible for decisions of other entities over which they have no power or authority. For the reasons discussed further below, the agency believes clarity and consistency can be restored to source determinations if the assessment of “control” for title V and NSR permitting purposes focuses on *the power or authority of one entity to dictate decisions of the other that could affect the applicability of, or compliance with, relevant air pollution regulatory requirements*.

This document reflects EPA’s interpretation of “control” in the context of EPA’s title V and NSR regulations and EPA’s policy regarding how to best apply this interpretation in source determinations. However, states with EPA-approved title V and NSR permitting programs retain the discretion to determine whether specific entities are under common control.¹⁵

A. Control means the power or authority to dictate decisions.

For purposes of source determinations, EPA considers “control” to be best understood to encompass the power or authority to dictate the outcome of decisions of another entity. This concept includes only the power to dictate a particular outcome and does not include the mere ability to influence. Thus, control exists when one entity has the power or authority to restrict another entity’s choices and effectively dictate a specific outcome, such that the controlled entity lacks autonomy to choose a different course of action. This power and authority could be exercised through various mechanisms, including common ownership or managerial authority (the chain of command within a corporate structure, including parent/subsidiary relationships), contractual obligations (*e.g.*, where a contract gives one entity the authority to direct specific activities of another entity), and other forms of control where, although not specifically delineated by corporate structure or contract, one entity nonetheless has the ability to effectively direct the specific actions of another entity. Thus, control can be established: (1) when one entity has the power to command the actions of another entity (*e.g.*, Entity A expressly directs Entity B to “do X”); or (2) when one entity’s actions effectively dictate the actions of another entity (*e.g.*, Entity A’s actions force Entity B to do X, and Entity B cannot do anything other than X). The

¹⁵ What follows is a discussion of those factors that EPA advises states to consider (and *not* to consider) when determining whether two entities are under common control. The general direction provided here by EPA should not be understood as controlling the outcome of any particular situation, which must be judged based on its individual facts and circumstances. This document is not a rule or regulation, and the statements herein are not binding on state or local permitting authorities. This discussion reflects a change in how EPA interprets the term “common control” in its regulations but does not change or substitute for any law, regulation, or other legally binding requirement.

second scenario that can establish control should not be confused with the broader concept, as historically articulated, embracing the “ability to influence.” While distinguishing control from the ability to merely influence will necessarily be a fact-specific inquiry, the key difference is that EPA interprets “control” to exist at the point where one entity’s influence over another entity effectively removes the autonomy of the controlled entity to decide whether or how to pursue a particular course of action.¹⁶ Ultimately, the focus is not on *how* control is established (through ownership, contract, or otherwise), but on *whether* control is established—that is, whether one entity can expressly or effectively force another entity to take a specific course of action, which the other entity cannot avoid through its own independent decision-making.

This narrower interpretation of the meaning of “control” in most respects traces back to, and is consistent with, definitions of “control” on which EPA previously relied that emphasized the “power to direct,”¹⁷ as well as a common sense understanding of “control.” However, this interpretation differs from definitions that EPA has cited more recently, as well as EPA’s prior interpretation of those definitions, which extended “control” to include the ability to influence.¹⁸ For the following reasons, EPA is no longer following these broader definitions and interpretations. Certainly, business relationships and external market forces can constrain the ability of an entity to make decisions with complete autonomy, and it is indeed rare that an entity is fully insulated from such external influences. However, the fact that an entity is influenced, affected, or somewhat constrained by contractual relationships that it negotiated at arm’s length, or by external market forces, does not necessarily mean that one entity is actually controlled or governed by these influences in making a given decision. After consideration of the inconsistent, impractical, and inequitable outcomes that could have resulted in this case under the previous interpretation that extended control to include the ability to influence, EPA has concluded that a narrower interpretation is better. A narrower interpretation avoids the potential for entities to be held responsible for actions over which they have no power or authority, but which instead they could merely have some influence over due to of market conditions or a business relationship that was negotiated on the open market or otherwise at arm’s length. Thus, EPA will from this point forward interpret the term “control” in its title V and NSR regulations to require more than the ability to merely influence.

¹⁶ For example, where Entity A is required to accept and process 100% of a raw material or intermediate produced by Entity B, decisions that Entity B makes with respect to the amount of raw material produced will likely affect Entity A’s production levels, which could affect Entity A’s emissions. However, provided that Entity A has the ability to independently decide how it operates its pollution-generating and pollution-controlling equipment, and to independently decide whether it expands its operations or not, this level of influence would not amount to “control.”

¹⁷ The common thread between definitions of “control” that EPA has relied upon is the “power to direct.” *See, e.g.*, 17 C.F.R. § 210.1-02(g) (SEC definition of control, “*power to direct or cause the direction of the management and policies of a person*”) (emphasis added); Spratlin Letter (citing Webster’s definition of control, including “*to have power over*”) (emphasis added).

¹⁸ *See, e.g.*, Spratlin Letter (Webster’s definition of control, including “*power or authority to guide or manage, “restraining or directing influence over*”); Seitz Memorandum at 9 (“restraining or directing influence”); *see also id.* at 10–13.

B. Focus should be on control over decisions that affect the applicability of, or compliance with, relevant air pollution regulatory requirements.

To promote clarity, consistency, and more practical outcomes in source determinations, EPA intends to focus on control (power or authority) over operations relevant to air pollution, and specifically control over such operations that could affect the applicability of, or compliance with, permitting requirements. EPA intends to examine whether the control exerted by one entity would determine whether a permitting requirement applies or does not apply to the other entity, or whether the control exerted by one entity would determine whether the other entity complies or does not comply with an existing permitting requirement. Thus, if “control” represents the power or authority of one entity to dictate a specific outcome at another entity (as described above), EPA considers the most relevant outcome to be the applicability of, or compliance with, air permitting requirements.

EPA considers this to be a reasonable policy, and a better approach, when determining common control in light of the applicable regulatory context. To start with, EPA’s regulations reference air pollution-emitting activities when defining what constitutes a single source.¹⁹ Definitions should not be read in isolation, however. Source determinations are made in the context of the NSR and title V permitting programs and their respective requirements pertaining to the control and monitoring of air pollution emissions. It logically follows, therefore, that the type of “control” most relevant to this inquiry is control over air pollution-emitting activities that trigger permitting requirements and affect compliance with those requirements. EPA therefore considers it appropriate to focus this inquiry on control over air pollution-emitting activities that could affect the applicability of, or compliance with, title V and NSR requirements.²⁰ If the authority one entity has over another cannot actually affect the applicability of, or compliance with, relevant permitting requirements, then the entities cannot control what permit requirements are applicable to each other, or whether another entity complies with its respective requirements. Effectively, this means that each entity has autonomy with respect to its own permitting obligations. It is more logical for such entities to be treated as separate sources, rather than being artificially grouped together for permitting purposes. EPA expects that any benefit that might be thought to be gained from the aggregation of entities that are effectively autonomous for permitting purposes would not “carry out reasonably the purposes” of the title V or NSR program. *See* 45 Fed. Reg. at 525694–95.²¹

¹⁹ *See, e.g.*, 40 C.F.R. § 52.21(b)(6) (defining “building, structure, facility, or installation” as “all of the *pollutant-emitting activities*” that are under common control, among other criteria (emphasis added)); 40 C.F.R. § 70.2 (clarifying that for the definition of “major source,” considerations of major industrial group (SIC code) should focus on “all of the *pollutant emitting activities* at such source or group of sources” (emphasis added)); *id.* (defining “stationary source” as “any building, structure, facility, or installation *that emits or may emit* any regulated air pollutant or any pollutant listed under section 112(b) of the [CAA]”) (emphasis added); 40 C.F.R. 52.21(b)(5) (similar definition of “stationary source” for NSR).

²⁰ EPA has previously articulated the importance of similar considerations, including “the power to make or veto decisions to implement major emission-control measures,” and the power to influence “compliance with environmental regulations.” Seitz Memorandum at 10 (citations omitted).

²¹ First, although a more expansive reading of control could result in more sources being subject to title V, the purpose of the title V program is *not* to indiscriminately maximize the number of sources required to obtain operating permits—such as by requiring small sources that would otherwise not be subject to title V to obtain a

Moreover, aggregating entities that cannot control decisions affecting applicability or compliance with permitting and other requirements would create practical difficulties and inequities. For title V purposes, it may be impossible for the responsible official of one entity to accurately certify the completeness of a permit application for a permit modification (*e.g.*, to incorporate requirements that are applicable to a new unit) that is entirely within the control of another entity, or to certify that the other entity has complied with existing permit requirements, as required by title V. *See* 40 C.F.R. § 70.5(a)(2), (c)(9)(i), (d). Similar problematic scenarios can arise under the NSR program as well. For instance, in order to determine whether a proposed physical or operational change would result in a “significant net emissions increase” and thus constitute a “major modification” at the source, an entity is required to identify and take account of all creditable emissions increases and decreases that had occurred source-wide during the relevant 5-year “contemporaneous” period. *See, e.g.*, 40 C.F.R. § 52.21(b)(3)(i)(b). It is not clear how it would even be possible for one entity to identify the creditable emissions increases and decreases that had occurred at that portion of the source under the control of another entity, much less determine whether NSR would be triggered by the proposed change.

More broadly, for both title V and NSR, an entity could face liability for the actions of another entity that were entirely outside the first entity’s control if both entities were treated as part of the same source. This result would clearly be inequitable. Put simply, an entity that cannot “direct” or “cause the direction of” a specific decision or action by another entity does not have “control” and should not be subject to the consequences of that decision.²² Focusing on control over decisions that could affect applicability or compliance with air quality permitting obligations avoids this potentially impractical and inequitable result while reasonably carrying out the purposes of the title V and NSR permitting programs.

In practice, evaluating common control will necessarily be a fact-specific inquiry. However, EPA believes the most relevant considerations should be whether entities have the power to direct the actions of other entities to the extent that they affect the applicability of and compliance with permitting requirements: *e.g.*, the power to direct the construction or modification of equipment that will result in emissions of air pollution; the manner in which such emission units operate; the installation or operation of pollution control equipment; and

permit simply because of their business relationships with a title V source. Second, the purpose of the NSR program is not to maximize the number of sources subject to PSD requirements (*e.g.*, BACT) by aggregating multiple entities until their combined emissions exceed major source thresholds. That said, it would also not be appropriate to rely on EPA’s current approach to artificially separate a source into multiple sources in order to evade major source status or otherwise circumvent title V or NSR requirements. Third, the purposes of the NSR program would not be fulfilled by allowing entities to intentionally (or unintentionally) over-aggregate, in order to share the benefits of emissions reductions (*e.g.*, accounting for emission reductions in determining a significant net emissions increase) at sources that do not have any control over each other’s permitting obligations. EPA’s current approach is intended to avoid these outcomes that are incongruent with the purposes of the title V and NSR programs by aggregating only those activities that accurately reflect a “common sense notion of a plant” from a permitting standpoint.

²² For example, if Entity A has no ability to dictate the relevant decisions of Entity B that would subject Entity B to new regulatory requirements or that would affect Entity B’s compliance with existing requirements, it would be inequitable to subject Entity A to such new requirements or hold Entity A responsible for Entity B’s compliance with existing requirements. Only if Entity A has the ability to dictate an action by Entity B that could result in permitting-related liability for either entity, should Entity A be held responsible for Entity B’s action (by virtue of being considered the same source).

monitoring, testing, recordkeeping, and reporting obligations. On the other hand, common control considerations should not focus on the power to direct aspects of an entity's operations that are wholly unrelated to air pollution permitting requirements. If one entity has power or authority over some aspect of another entity's operations that would have no impact on pollutant-emitting activities of the stationary source subject to permitting requirements, EPA does not consider that fact to be relevant to determining whether the two entities should be considered a single source for air quality permitting purposes (*e.g.*, one entity providing security for both its facility and for an adjacent facility belonging to another entity).

Overall, focusing on the power to direct decisions over air pollution-related activities that could affect permitting obligations (*i.e.*, applicability or compliance) is reasonable, and a better approach to determining whether there is common control in the context of title V and NSR permitting. EPA expects that this approach will produce more consistent and sensible outcomes. Accordingly, EPA will generally view common control to exist in situations where entities lack the power or authority to make independent decisions that could affect the applicability of, or compliance with, relevant regulatory requirements concerning air pollution.

C. Dependency relationships should not be presumed to result in common control.

It is important, in evaluating whether common control might be said to exist due to the existence of a dependency relationship between entities, not to confuse this evaluation with the altogether separate issue of whether one entity is a "support facility" for another entity. Questions arising out of the consideration of the latter issue are directly accommodated within a distinct element of the source determination framework: the industrial grouping (2-digit SIC code) prong.²³ EPA has previously stated that "a support facility analysis is only relevant under the SIC-code determination." *In the Matter of Anadarko Petroleum Corp., Frederic Compressor Station*, Order on Petition no. VIII-2010-4 at 16 (February 2, 2011). This important distinction aside, a dependency relationship should not be presumed to result in common control. While mutually beneficial arrangements that give rise to dependency relationships could give one facility influence over the operations of another, entities can be economically or operationally interconnected or mutually dependent through contracts or other business arrangements without having the power or authority to direct the relevant activities of each other. To the extent that the same underlying facts should be weighed in evaluating common control, these considerations should generally be evaluated as outlined above to determine whether one entity has the power or authority to dictate the decisions of another entity (and not simply to determine whether a dependency relationship exists).

²³ As EPA has explained, both primary and support facilities are to be assigned the same 2-digit SIC code. 45 Fed. Reg. at 52695; *see also* 1987 SIC Code Manual at 16–17 ("Each operating establishment is assigned an industry code on the basis of its primary activity Auxiliary establishments are assigned four-digit industry codes on the basis of the primary activity of the operating establishments they serve."). In the PSD rulemaking process conducted from 1979 to 1980, EPA decided to accommodate considerations of support or functional interrelatedness as part of the major industrial grouping (2-digit SIC code) prong, as opposed to establishing this as an independent component of the source determination analysis. *See* 45 Fed. Reg. 52676, 52695 (August 7, 1980). In so doing, EPA did not indicate that support or functional interrelatedness considerations should be made in the context of other discrete elements of the source determination framework (*i.e.*, the common control or adjacency prongs).

A number of practical considerations support this separation. First, the fact that economic conditions are such that one entity depends on another facility does not necessarily mean that it has the power or authority to direct the decisions of, or that its decisions are directed by, that other facility on which it depends. Second, the fact that one facility would not profitably exist *but for* the existence of another entity does not necessarily mean that, at some point after beginning operation, the entities will have the power or authority to dictate the outcome of decisions regarding relevant air-pollution related aspects of each other's operations. These situations should be evaluated in light of the principles discussed above, and inquiries concerning common control should not be sidestepped by presuming control based on the presence of a dependency relationship.

V. Evaluation of Meadowbrook and KSL Under Revised Interpretation and Policy for Common Control

Applying the interpretation of “common control” and the policy of focusing on air permitting requirements described above, based on the information provided by Meadowbrook,²⁴ EPA would not view the Meadowbrook and KSL facilities to be under common control. First, regarding control over KSL's landfill, it does not appear that Meadowbrook has power or authority to dictate decisions over any aspect of KSL's operations that could affect the applicability of, or compliance with, permitting requirements. Specifically, Meadowbrook does not have the power or authority to determine whether KSL complies with regulatory requirements associated with its LFG (*i.e.*, the Subpart WWW NSPS) that are applicable requirements within KSL's title V permit. Of course, Meadowbrook can indirectly affect KSL's operations by declining to take delivery of all of KSL's LFG at the demarcation point (or by ceasing operations). This means that Meadowbrook's actions (accepting or not accepting the LFG) would effectively dictate whether KSL does or does not destroy its LFG via its flares. Because Meadowbrook can effectively dictate this outcome at KSL, this could arguably be considered a form of control over this aspect of KSL's operations. However, this limited amount of control would not be over operations that EPA finds most relevant. Importantly, Meadowbrook will not affect KSL's ability to comply with its regulatory obligations since KSL retains the ability to redirect its LFG to flares operated exclusively by KSL and Meadowbrook has no power or authority over how KSL operates such flares.²⁵ Because Meadowbrook therefore has no power or authority over KSL's operations of the sort that EPA deems most relevant, *i.e.*, KSL's ability to comply with relevant permitting requirements, EPA's view is that

²⁴ EPA notes that some of the analysis initially provided by Meadowbrook and supplemented in its March 16, 2018, analysis is based on an agreement between Meadowbrook and KSL that is subject to revision. EPA's analysis below is based on the representations provided by Meadowbrook, and should not be interpreted as a complete evaluation of all facts that may be relevant to the question of common control. PADEP, as the permitting authority, is responsible for making a source determination based on all relevant facts, which may extend to current factual considerations that were not included in Meadowbrook's analysis, or to facts that eventually differ from those that Meadowbrook predicted at the time of its March 16, 2018, submittal.

²⁵ This situation is no different from a landfill that utilizes flares as a control device and naturally has no other options to dispose of its LFG (*e.g.*, no ability to send the LFG to a treatment facility or energy generating facility). In either case, even if the landfill has only one general option to dispose of its gas (flaring), it would nonetheless likely retain complete control over whether and how it does so (including whether it complies with relevant regulatory requirements when doing so).

Meadowbrook does not control KSL simply because KSL will ordinarily rely on Meadowbrook as a means of disposing of its LFG.²⁶ There is no indication that Meadowbrook has any power or authority over other activities occurring at KSL.²⁷

Second, regarding control over Meadowbrook's operations, although KSL supplies Meadowbrook with a potentially large percentage of the feedstock (LFG) that Meadowbrook processes into a product for market (pipeline-quality renewable natural gas), it does not appear that this arrangement gives KSL power or authority over Meadowbrook's operations. Operations at KSL could ultimately affect the amount of LFG available to Meadowbrook, and thus, could indirectly affect the air emissions that ultimately occur at Meadowbrook in the course of processing the LFG. But it does not appear that Meadowbrook is contractually obligated to purchase the full output of KSL (although this may typically be the case).²⁸ Moreover, Meadowbrook indicated that it is actively pursuing other suppliers of feedstock, such that KSL will likely not be the only supplier of LFG (or other gas feedstock) to KSL. Thus, KSL does not have the power or authority to determine the amount of gas received (and therefore processed) by Meadowbrook. To the extent that decisions by KSL could indirectly impact air emissions at Meadowbrook, there is no indication that this would give KSL power or authority over any of Meadowbrook's air pollution-related operations, much less affect any permitting obligations applicable to Meadowbrook. At most, this amounts to influence, not control. Therefore, it would be appropriate to conclude that KSL does not control Meadowbrook in the sense relevant for determining whether the two entities' facilities constitute a single source. KSL simply supplies a feedstock product to Meadowbrook through an arm's length contract. KSL has no power or authority to direct other aspects of Meadowbrook's operations, including the means by which Meadowbrook generates and controls emissions.

Although Meadowbrook and KSL have at least influence over each other's operations, neither has "control" (as this term is interpreted above) over decisions that could affect air permitting obligations of the other. Rather, this appears to be, as Meadowbrook claimed, a mutually beneficial arms-length arrangement between two wholly-separate business entities. Therefore, EPA does not recommend that Meadowbrook and KSL be considered to be part of the same stationary source or major source on the basis of common control. However, as the permitting authority, PADEP retains the ultimate discretion to make source determinations based on its EPA-approved title V and NSR rules.

²⁶ This conclusion is premised on Meadowbrook's representation that KSL's permit would not be modified in such a manner that Meadowbrook would have the power or authority to dictate whether KSL complies with its permit terms.

²⁷ Although Meadowbrook may supply funding or other resources to KSL for purposes of optimizing KSL's landfill gas recovery system, Meadowbrook's representations suggest that KSL would nonetheless retain complete control over this optimization process, and that Meadowbrook would not control any aspect of the LFG collection process. Additionally, the limited information presented by Meadowbrook regarding its potential future use of KSL's leachate, condensate, and wastewater treatment systems at market prices does not indicate that this would result in Meadowbrook's control over this aspect of KSL's operations. However, this arrangement may warrant further evaluation as Meadowbrook and KSL finalize their plans.

²⁸ As noted above, Meadowbrook indicated that it is only required to accept as much LFG as Meadowbrook can process.

APPENDIX D
EPA's Tanks 4.09d Emissions Reports

APPENDIX D1
Pre-Project Potential Emissions – Tanks Reports

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	N-829-16
City:	stockton
State:	California
Company:	Nustar
Type of Tank:	Internal Floating Roof Tank
Description:	

Tank Dimensions

Diameter (ft):		70.00
Volume (gallons):		1,386,000.00
Turnovers:		24.00
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-829-16 - Internal Floating Roof Tank
stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	Jan	55.08	51.49	58.67	61.57	7.4408	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Feb	57.96	53.17	62.75	61.57	7.8486	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Mar	60.22	54.36	66.07	61.57	8.1808	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Apr	63.26	55.98	70.54	61.57	8.6458	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	May	67.10	58.83	75.36	61.57	9.2610	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Jun	70.33	61.45	79.22	61.57	9.8069	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Jul	72.25	63.02	81.48	61.57	10.1422	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Aug	71.45	62.84	80.06	61.57	10.0007	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Sep	69.03	61.28	76.77	61.57	9.5835	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Oct	64.64	58.13	71.16	61.57	8.8641	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Nov	58.87	54.21	63.53	61.57	7.9813	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Dec	54.98	51.51	58.44	61.57	7.4268	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d **Emissions Report - Detail Format** **Detail Calculations (AP-42)**

N-829-16 - Internal Floating Roof Tank **stockton, California**

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	36.6015	39.5300	42.0342	45.7385	51.0492	56.2223	59.6525	58.1795	54.0478	47.5661	40.5168	36.5035
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.2431	0.2677	0.2841	0.2770	0.2574	0.2265	0.1929	0.1738
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	7.4408	7.8486	8.1808	8.6458	9.2610	9.8069	10.1422	10.0007	9.5835	8.8641	7.9813	7.4268
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686	7.4686
Number of Columns:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Effective Column Diameter (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Net Throughput (gal/mo.):	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000	2,772,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Deck Fitting Losses (lb):	30.3095	32.7346	34.8083	37.8758	42.2736	46.5574	49.3880	48.1781	44.7567	39.3892	33.5518	30.2283
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.2431	0.2677	0.2841	0.2770	0.2574	0.2265	0.1929	0.1738
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact (lb-mole/yr):	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800	34.7800
Deck Seam Losses (lb):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length (ft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):	74.3796	79.7333	84.3110	91.0829	100.7914	110.2482	116.5191	113.8261	106.2731	94.4238	81.5371	74.2003
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1		1.60		0.00		0.00		21.6445			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		37.8779			
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1		0.47		0.02		0.97		6.3581			
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2		8.60		12.00		0.81		232.6784			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1		0.71		0.10		1.00		9.6047			
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1		12.00		0.00		0.00		162.3338			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

N-829-16 - Internal Floating Roof Tank
stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	567.64	89.62	470.06	0.00	1,127.33

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	N-829-29 PE1
City:	Stockton
State:	California
Company:	Nustar
Type of Tank:	External Floating Roof Tank
Description:	EFT Domed

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	492.75

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Detail

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-829-29 PE1 - External Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	Jan	55.08	51.49	58.67	61.57	7.4408	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Feb	57.96	53.17	62.75	61.57	7.8486	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Mar	60.22	54.36	66.07	61.57	8.1808	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Apr	63.26	55.98	70.54	61.57	8.6458	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	May	67.10	58.83	75.36	61.57	9.2610	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Jun	70.33	61.45	79.22	61.57	9.8069	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Jul	72.25	63.02	81.48	61.57	10.1422	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Aug	71.45	62.84	80.06	61.57	10.0007	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Sep	69.03	61.28	76.77	61.57	9.5835	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Oct	64.64	58.13	71.16	61.57	8.8641	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Nov	58.87	54.21	63.53	61.57	7.9813	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15.0)	Dec	54.98	51.51	58.44	61.57	7.4268	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d **Emissions Report - Detail Format** **Detail Calculations (AP-42)**

N-829-29 PE1 - External Floating Roof Tank **Stockton, California**

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	314.4243	347.8644	405.1294	469.5818	572.2378	630.2248	606.1833	560.7392	486.9449	393.6658	309.8571	302.1095
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	6.4000
Seal-related Wind Speed Exponent:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.2431	0.2677	0.2841	0.2770	0.2574	0.2265	0.1929	0.1738
Vapor Pressure at Daily Average Liquid												
Surface Temperature (psia):	7.4408	7.8486	8.1808	8.6458	9.2610	9.8069	10.1422	10.0007	9.5835	8.8641	7.9813	7.4268
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558	236.5558
Net Throughput (gal/mo.):	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000	137,970.0000
Shell Clingage Factor (bb/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Roof Fitting Losses (lb):	415.9997	465.5327	566.0451	675.9829	858.5615	945.5628	868.4115	783.4624	658.9690	511.7133	387.9694	392.7023
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.2431	0.2677	0.2841	0.2770	0.2574	0.2265	0.1929	0.1738
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact. (lb-mole/yr):	477.3572	494.6206	565.5849	620.7307	706.3685	706.3685	611.4290	565.5849	512.0782	451.8339	402.1718	451.8339
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	6.4000
Total Losses (lb):	966.9799	1,049.9529	1,207.7304	1,382.1205	1,667.3551	1,812.3434	1,711.1506	1,580.7574	1,382.4697	1,141.9349	934.3823	931.3677
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2		1.60		0.00		0.00		43.2890			
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1		11.00		46.00		1.40		6,622.8661			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		37.8779			
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2		6.20		1.20		0.94		323.5534			
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1		0.47		0.02		0.97		7.7235			
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16		1.20		0.14		0.65		349.2059			
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15		0.49		0.16		0.14		140.3942			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1		0.71		0.10		1.00		16.7845			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-29 PE1 - External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	5,398.96	2,838.67	7,530.91	0.00	15,768.54

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: N-829-21 Annual PE1 - Pump Rate - Gasoline
 City: Stockton
 State: California
 Company: NuStar Terminals Ops Partnership LP
 Type of Tank: Internal Floating Roof Tank
 Description: NuStar (TK 3302) - per info provided under this project, the pump rate is 90,000 gal/hr, w/ tank capacity of 1,328,124 gal, the max daily turnover is 1.63 (90,000 gal/hr x 24 hr/day ÷ 1,328,124 gal), and max annual turnover is 594.95 (1.63 turn/day x 365)

Tank Dimensions

Diameter (ft):	70.00
Volume (gallons):	1,328,124.00
Turnovers:	593.62
Self Supp. Roof? (y/n):	N
No. of Columns:	1.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good
 Roof Color/Shade: White/White
 Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Characteristics

Deck Fitting Category: Detail
 Deck Type: Welded

Deck Fitting/Status

	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	1
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg or Hanger Well/Adjustable	14
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d

Emissions Report - Detail Format

Liquid Contents of Storage Tank

N-829-21 Annual PE1 - Pump Rate - Gasoline - Internal Floating Roof Tank Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15)	Jan	55.08	51.49	58.67	61.57	7.4408	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Feb	57.96	53.17	62.75	61.57	7.8486	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Mar	60.22	54.36	66.07	61.57	8.1808	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Apr	63.26	55.98	70.54	61.57	8.6458	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 7)	May	67.10	58.83	75.36	61.57	4.0186	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Jun	70.33	61.45	79.22	61.57	4.2834	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Jul	72.25	63.02	81.48	61.57	4.4468	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Aug	71.45	62.84	80.06	61.57	4.3778	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Sep	69.03	61.28	76.77	61.57	4.1748	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Oct	64.64	58.13	71.16	61.57	3.8272	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 15)	Nov	58.87	54.21	63.53	61.57	7.9813	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Dec	54.98	51.51	58.44	61.57	7.4268	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

N-829-21 Annual PE1 - Pump Rate - Gasoline - Internal Floating Roof Tank
Stockton, California

04/06/2019

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-21 Annual PE1 - Pump Rate - Gasoline - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	240.92	1,077.26	1,509.79	0.00	2,827.98
Gasoline (RVP 7)	119.34	1,077.26	747.85	0.00	1,944.45

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: N-829-28-6 Annual PE1 - Pump Rate - Gasoline
 City: Stockton
 State: California
 Company: NuStar Terminals Ops Partnership LP
 Type of Tank: Domed External Floating Roof Tank
 Description: NuStar (TK 80001) - per info provided under this project, the pump rate is 90,000 gal/hr, w/ tank capacity of 3,360,000 gal, the max daily turnover is 0.64 (90,000 gal/hr x 24 hr/day ÷ 3,360,000 gal), and max annual turnover is 234.64.

Tank Dimensions

Diameter (ft): 110.00
 Volume (gallons): 3,360,000.00
 Turnovers: 234.64

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good

Roof Characteristics

Type: Pontoon
 Fitting Category: Detail

Tank Construction and Rim-Seal System

Construction: Welded
 Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Fitting/Status

	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d

Emissions Report - Detail Format

Liquid Contents of Storage Tank

N-829-28-6 Annual PE1 - Pump Rate - Gasoline - Domed External Floating Roof Tank Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15)	Jan	55.08	51.49	58.67	61.57	7.4408	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Feb	57.96	53.17	62.75	61.57	7.8486	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Mar	60.22	54.36	66.07	61.57	8.1808	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Apr	63.26	55.98	70.54	61.57	8.6458	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 7)	May	67.10	58.83	75.36	61.57	4.0186	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Jun	70.33	61.45	79.22	61.57	4.2834	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Jul	72.25	63.02	81.48	61.57	4.4468	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Aug	71.45	62.84	80.06	61.57	4.3778	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Sep	69.03	61.28	76.77	61.57	4.1748	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Oct	64.64	58.13	71.16	61.57	3.8272	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 15)	Nov	58.87	54.21	63.53	61.57	7.9813	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 15)	Dec	54.98	51.51	58.44	61.57	7.4268	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

N-829-28-6 Annual PE1 - Pump Rate - Gasoline - Domed External Floating Roof Tank Stockton, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	57.5166	62.1186	66.0537	71.8748	29.7541	32.0810	33.5459	32.9243	31.1202	28.1062	63.6693	57.3626
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph)*n):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Average Wind Speed (mph):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Seal-related Wind Speed Exponent:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.0796	0.0858	0.0897	0.0880	0.0832	0.0752	0.1929	0.1738
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	7.4408	7.8486	8.1808	8.6458	4.0186	4.2834	4.4468	4.3778	4.1748	3.8272	7.9813	7.4268
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443	112.6443
Net Throughput (gal/mo.):	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000	65,699,200.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Roof Fitting Losses (lb):	74.5363	80.5001	85.5996	93.1432	38.5586	41.5740	43.4724	42.6669	40.3290	36.4230	82.5096	74.3367
Value of Vapor Pressure Function:	0.1743	0.1882	0.2002	0.2178	0.0796	0.0858	0.0897	0.0880	0.0832	0.0752	0.1929	0.1738
Vapor Molecular Weight (lb/lb-mole):	60.0000	60.0000	60.0000	60.0000	68.0000	68.0000	68.0000	68.0000	68.0000	68.0000	60.0000	60.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300	85.5300
Average Wind Speed (mph):	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total Losses (lb):	244.6973	255.2630	264.2976	277.6622	180.9569	186.2992	189.6625	188.2355	184.0935	177.1735	258.8231	244.3435

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		m	Losses(lb)
		KFa(lb-mole/yr)	KFb(lb-mole/(yr mph*n))		
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	13.6806
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1	41.00	48.00	1.40	350.5646
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	23.9410
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20	0.94	106.0244
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	4.0187
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16	1.20	0.14	0.65	164.1669
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15	0.49	0.16	0.14	62.8451
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	6.0708

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-28-6 Annual PE1 - Pump Rate - Gasoline - Domed External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	378.60	675.87	490.63	0.00	1,545.09
Gasoline (RVP 7)	187.53	675.87	243.02	0.00	1,106.42

APPENDIX D2
Post-Project Potential Emissions – Tanks Reports

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: N-829-16
City: stockton
State: California
Company: Nustar
Type of Tank: Internal Floating Roof Tank
Description:

Tank Dimensions

Diameter (ft): 70.00
Volume (gallons): 1,386,000.00
Turnovers: 181.82
Self Supp. Roof? (y/n): Y
No. of Columns: 0.00
Eff. Col. Diam. (ft): 0.00

Paint Characteristics

Internal Shell Condition: Light Rust
Shell Color/Shade: White/White
Shell Condition: Good
Roof Color/Shade: White/White
Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
Secondary Seal: Rim-mounted

Deck Characteristics

Deck Fitting Category: Detail
Deck Type: Welded

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-829-16 - Internal Floating Roof Tank
stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	All	63.76	57.19	70.34	61.57	8.7246	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

N-829-16 - Internal Floating Roof Tank
stockton, California

Annual Emission Calculations	
Rim Seal Losses (lb):	556.7002
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000
Value of Vapor Pressure Function:	0.2209
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	8.7246
Tank Diameter (ft):	70.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	678.9600
Number of Columns:	0.0000
Effective Column Diameter (ft):	0.0000
Annual Net Throughput (gal/yr):	252,000,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.6000
Tank Diameter (ft):	70.0000
Deck Fitting Losses (lb):	461.0008
Value of Vapor Pressure Function:	0.2209
Vapor Molecular Weight (lb/lb-mole):	60.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	34.7800
Deck Seam Losses (lb):	0.0000
Deck Seam Length (ft):	0.0000
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.0000
Deck Seam Length Factor(ft/sqft):	0.0000
Tank Diameter (ft):	70.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000
Product Factor:	1.0000
Total Losses (lb):	1,696.6611

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		m	Losses(lb)
		KFa(lb-mole/yr)	KFb(lb-mole/(yr mph ⁿ n))		
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60	0.00	0.00	21.2076
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	37.1133
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	6.2297
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2	8.60	12.00	0.81	227.9820
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	9.4109
Sample Pipe or Well (24-in. Diam.)/Silt Fabric Seal 10% Open	1	12.00	0.00	0.00	159.0572

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

N-829-16 - Internal Floating Roof Tank
stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	556.70	678.96	461.00	0.00	1,696.66

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	N-829-16
City:	stockton
State:	California
Company:	Nustar
Type of Tank:	Internal Floating Roof Tank
Description:	

Tank Dimensions

Diameter (ft):		70.00
Volume (gallons):		1,386,000.00
Turnovers:		181.82
Self Supp. Roof? (y/n):	Y	
No. of Columns:		0.00
Eff. Col. Diam. (ft):		0.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Detail
Deck Type:	Welded

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

N-829-16 - Internal Floating Roof Tank
stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	Jul	72.25	63.02	81.48	61.57	10.1422	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d **Emissions Report - Detail Format** **Detail Calculations (AP-42)**

N-829-16 - Internal Floating Roof Tank **stockton, California**

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):							59.6525					
Seal Factor A (lb-mole/ft-yr):							0.6000					
Seal Factor B (lb-mole/ft-yr (mph)*n):							0.4000					
Value of Vapor Pressure Function:							0.2841					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							10.1422					
Tank Diameter (ft):							70.0000					
Vapor Molecular Weight (lb/lb-mole):							60.0000					
Product Factor:							1.0000					
Withdrawal Losses (lb):							56.5800					
Number of Columns:							0.0000					
Effective Column Diameter (ft):							0.0000					
Net Throughput (gal/mo.):						21,000,000.0000						
Shell Clingage Factor (bbl/1000 sqft):							0.0015					
Average Organic Liquid Density (lb/gal):							5.6000					
Tank Diameter (ft):							70.0000					
Deck Fitting Losses (lb):							49.3980					
Value of Vapor Pressure Function:							0.2841					
Vapor Molecular Weight (lb/lb-mole):							60.0000					
Product Factor:							1.0000					
Tot. Roof Fitting Loss Fact.(lb-mole/yr):							34.7800					
Deck Seam Losses (lb):							0.0000					
Deck Seam Length (ft):							0.0000					
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):							0.0000					
Deck Seam Length Factor(ft/sqft):							0.0000					
Tank Diameter (ft):							70.0000					
Vapor Molecular Weight (lb/lb-mole):							60.0000					
Product Factor:							1.0000					
Total Losses (lb):							165.6305					
Roof Fitting/Status	Quantity	KF _a (lb-mole/yr		Roof Fitting Loss Factors KF _b (lb-mole/(yr mph*n))		m		Losses(lb)				
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60		0.00		0.00		2.3161				
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80		0.00		0.00		4.0531				
Gauge Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47		0.02		0.97		0.6803				
Unslotted Guide-Pole Well/Gasketed Sliding Cover, w. Sleeve	2	8.60		12.00		0.81		24.8976				
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71		0.10		1.00		1.0278				
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1	12.00		0.00		0.00		17.3704				

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: July

N-829-16 - Internal Floating Roof Tank
stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	59.65	56.58	49.40	0.00	165.63

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Tank 29 PE2
City:	Stockton
State:	California
Company:	Nustar
Type of Tank:	Domed External Floating Roof Tank
Description:	258,000,000 throughput

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	76.79

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Detail

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam./Bolted Cover, Gasketed	2
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank 29 PE2 - Domed External Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	All	63.76	57.19	70.34	61.57	8.7246	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank 29 PE2 - Domed External Floating Roof Tank
Stockton, California

Annual Emission Calculations	
Rim Seal Losses (lb):	874.8147
Seal Factor A (lb-mole/ft-yr):	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000
Average Wind Speed (mph):	0.0000
Seal-related Wind Speed Exponent:	1.0000
Value of Vapor Pressure Function:	0.2209
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	8.7246
Tank Diameter (ft):	110.0000
Vapor Molecular Weight (lb/lb-mole):	60.0000
Product Factor:	1.0000
Withdrawal Losses (lb):	442.3527
Annual Net Throughput (gal/yr.):	258,000,000.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015
Average Organic Liquid Density (lb/gal):	5.6000
Tank Diameter (ft):	110.0000
Roof Fitting Losses (lb):	765.1977
Value of Vapor Pressure Function:	0.2209
Vapor Molecular Weight (lb/lb-mole):	60.0000
Product Factor:	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	57.7300
Average Wind Speed (mph):	0.0000

Total Losses (lb): 2,082.3652

Roof Fitting/Status	Quantity	Roof Fitting Loss Factors		m	Losses(lb)
		KFa(lb-mole/yr)	KFb(lb-mole/(yr mph ⁿ n))		
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2	1.60	0.00	0.00	42.4153
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1	11.00	46.00	1.40	145.8024
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80	0.00	0.00	37.1133
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1	0.47	0.02	0.97	6.2297
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16	1.20	0.14	0.65	254.4915
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	15	0.53	0.11	0.13	105.3754
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1	0.71	0.10	1.00	9.4109
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2	6.20	1.20	0.94	164.3591

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: Annual

Tank 29 PE2 - Domed External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	874.81	442.35	765.20	0.00	2,082.37

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Tank 29 PE21
City:	Stockton
State:	California
Company:	Nustar
Type of Tank:	Domed External Floating Roof Tank
Description:	258,000,000 throughput

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	76.79

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Detail

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam./Bolted Cover, Gasketed	2
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Tank 29 PE21 - Domed External Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15.0)	Jul	72.25	63.02	81.48	61.57	10.1422	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3

TANKS 4.0.9d
Emissions Report - Detail Format
Detail Calculations (AP-42)

Tank 29 PE21 - Domed External Floating Roof Tank
Stockton, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):							93.7397					
Seal Factor A (lb-mole/ft-yr):							0.6000					
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):							0.4000					
Average Wind Speed (mph):							0.0000					
Seal-related Wind Speed Exponent:							1.0000					
Value of Vapor Pressure Function:							0.2841					
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):							10.1422					
Tank Diameter (ft):							110.0000					
Vapor Molecular Weight (lb/lb-mole):							60.0000					
Product Factor:							1.0000					
Withdrawal Losses (lb):							36.8627					
Net Throughput (gal/mo.):						21,500,000.0000						
Shell Clingage Factor (bbl/1000 sqft):							0.0015					
Average Organic Liquid Density (lb/gal):							5.6000					
Tank Diameter (ft):							110.0000					
Roof Fitting Losses (lb):							81.9938					
Value of Vapor Pressure Function:							0.2841					
Vapor Molecular Weight (lb/lb-mole):							60.0000					
Product Factor:							1.0000					
Tot. Roof Fitting Loss Fact.(lb-mole/yr):							57.7300					
Average Wind Speed (mph):							0.0000					
Total Losses (lb):							212.5962					
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		Roof Fitting Loss Factors KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2		1.60		0.00		0.00		4.6321			
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Sleeve	1		11.00		46.00		1.40		15.9229			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		4.0531			
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1		0.47		0.02		0.97		0.6803			
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16		1.20		0.14		0.65		27.7927			
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Gasketed	15		0.53		0.11		0.13		11.5079			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1		0.71		0.10		1.00		1.0278			
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2		6.20		1.20		0.94		17.9495			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: July

Tank 29 PE21 - Domed External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15.0)	93.74	36.86	81.99	0.00	212.60

APPENDIX E

SSPE1 Calculations

SSPE1 Calculations

Permit Unit	Pollutant (lb/year)				
	NOx	SOx	PM10	CO	VOC
N-829-1-9	0	0	0	0	11,275
N-829-2-9	0	0	0	0	
N-829-5-5	0	0	0	0	5,083
N-829-6-8	0	0	0	0	4,613
N-829-7-6	0	0	0	0	4,161
N-829-16-9	0	0	0	0	1,149
N-829-17-8	0	0	0	0	7,264
N-829-18-9	0	0	0	0	4,146
N-829-20-9	25,250	272	718	62,370	60,480
N-829-21-5	0	0	0	0	4,798
N-829-22-5	0	0	0	0	6,004
N-829-28-6	0	0	0	0	2,692
N-829-29-7	0	0	0	0	15,798
N-829-31-5	0	0	0	0	1,236
N-829-32-1	0	0	0	0	2,543
N-829-33-1	0	0	0	0	3,754
N-829-35-1	0	0	0	0	1,168
N-829-37-1	0	0	0	0	410
N-829-38-1	0	0	0	0	197
ERC	0	0	0	0	0
SSPE1	25,250	272	718	62,370	136,771

The above emission profiles were obtained from different engineering evaluation documents, and the associated project numbers are summarized in the following table.

Permit Units	Engineering Evaluation – Project Number
N-829-1-9, -2-9, -20-9, -21-5, -28-6, and -29-7	Current application N-1181193
N-829-5-5	N-1133817
N-829-6-8 and -22-5	N-1011905
N-829-7-6	N-1052330
N-829-16-9	N-1191261
N-829-17-8	N-1172657
N-829-18-9	N-1172657
N-829-20-9	N-1082080
N-829-31-5	N-1091826
N-829-32-1, and -33-1	N-1062958
N-829-35-1	N-1091343
N-829-37-0, and -38-0	N-1171064

APPENDIX F

Baseline Actual Emissions Calculations

Baseline Actual Emissions Calculations:

Loading Rack Emissions (N-829-1, N-829-2, VCU (N-829-20)):

Emissions from the organic liquids loading operation include the following three sources of emissions: a) captured loading losses that vent to the VCU; b) disconnection emissions; and c) fugitive emissions from the components.

a) VCU Control Emissions:

Per provided historical operating records in Appendix F1 and the annual source test results, the BAE for this unit is:

Emissions 2016 = 368,975,108 gallons x 0.004 lb-VOC/1000 gal = 1,476 lb-VOC/year
Emissions 2017 = 406,513,442 gallons x 0.0065 lb-VOC/1000 gal = 2,642 lb-VOC/year

BAE = (1,476 lb-VOC/year + 2,642 lb-VOC/year) ÷ 2 = 2,059 lb-VOC/year

b) Disconnection emissions:

Per applicant, the maximum annual loadout events for both loading racks combined are 48,468 events per year that calculated based on the throughput ratio of the historical operating records and the potential throughput limit (387,744,275 (gal/yr)/756,000,000 (gal/yr) x 94,500 (event/year), the number of disconnect per each loadout event is 8 disconnects per loading event, the worst-case density of organic liquid loaded through the loading rack is 6.76 pounds per gallon. The annual disconnection emissions are calculated as follows:

BAE_{Disconnect} = 8 mL/disconnect x 48,468 event/year x 8 disconnect/event x 1 gal/3785.41 mL
x 6.76 lb/gal
= 5,539 lb-VOC/yr

c) Fugitive Emissions:

BAE fugitive components emissions from the loading racks are equal to 204 lb-VOC/yr and 270 lb-VOC/yr, respectively.

Total Loading Rack Emissions	BAE (lb-VOC/year)
Controlled Emissions	2,059
Disconnection Emissions	5,539
Fugitive Emissions	474 (204 + 270)
Total	8,072

N-829-16, -21, -28, & -29 (Storage Tanks)

The BAE from these storage tanks is determined by using EPA's TANKS 4.09d program with the provided historical operating records in Appendix F1, which total BAE for these tanks is 7,986 lb-VOC/yr $[(1,293 + 22) + (112 + 26) + (162 + 40) + (6,419 + 29)]$. See emissions reports in Appendix F2 of this document.

Project Baseline Actual Emissions:

The BAE for this project are summarized in the following table.

	BAE (lb-VOC/year)
N-829-1, N-829-2, and N-829-20	8,072
N-829-16	1,315
N-829-21	138
N-829-28	202
N-829-29	6,448
Total	16,175

APPENDIX F1
Historical Operation Records

Monthly Throughput (gallons) through Permit Units N-829-1 and N-829-2

January 2016 to December 2017

Month	Gasoline	Distillate	Ethanol	Total
Jan-16	9,332,137	9,694,759	4,966,840	23,993,736
Feb-16	9,278,311	8,418,042	4,844,428	22,540,781
Mar-16	14,204,008	9,314,092	5,092,272	28,610,372
Apr-16	14,248,598	10,713,110	5,340,640	30,302,348
May-16	15,046,775	12,180,125	6,064,400	33,291,300
Jun-16	15,240,745	11,570,006	6,297,722	33,108,473
Jul-16	15,911,528	11,923,258	3,965,996	31,800,782
Aug-16	18,813,437	13,647,022	4,463,442	36,923,901
Sep-16	17,939,760	13,765,491	3,682,175	35,387,426
Oct-16	17,940,945	11,818,002	3,866,346	33,625,293
Nov-16	16,605,684	10,548,911	3,244,344	30,398,939
Dec-16	16,295,755	9,826,045	2,869,957	28,991,757
Jan-17	18,772,715	9,260,518	3,855,077	31,888,310
Feb-17	13,366,418	7,394,102	2,531,189	23,291,709
Mar-17	19,475,366	11,242,858	5,826,181	36,544,405
Apr-17	22,538,237	10,194,588	5,839,041	38,571,866
May-17	18,310,102	11,805,182	4,240,967	34,356,251
Jun-17	18,877,175	10,891,009	3,461,797	33,229,981
Jul-17	18,608,390	11,343,825	3,877,379	33,829,594
Aug-17	18,816,618	14,353,922	4,385,638	37,556,178
Sep-17	18,419,653	13,096,273	3,464,590	34,980,516
Oct-17	19,283,042	15,427,951	3,280,618	37,991,611
Nov-17	18,301,155	11,498,191	3,146,379	32,945,725
Dec-17	18,720,730	9,746,331	2,860,235	31,327,296
Total	404,347,284	269,673,613	101,467,653	775,488,550

Totals by Calendar Year	Throughput (gal)
2016	368,975,108
2017	406,513,442
Average annual throughput	387,744,275

Monthly Throughputs (gallons) for Permit Units N-829-28, N-829-29, N-829-16, N-829-21 and N-829-32
January 2016 to December 2017

[illegible][illegible]

APPENDIX F2
EPA's Tanks 4.09d Emissions Reports – BAE

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: N-829-16 BAE - 2016 (Riveted)
 City: Stockton
 State: California
 Company: NuStar Terminals Ops Partnership LP
 Type of Tank: Internal Floating Roof Tank
 Description: NuStar (TK 3301) - Gasoline - tank and fitting info based on project N-1191261)

Tank Dimensions

Diameter (ft):		70.00
Volume (gallons):		1,386,000.00
Turnovers:		0.15
Self Supp. Roof? (y/n):	N	
No. of Columns:		1.00
Eff. Col. Diam. (ft):		0.70

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Detail	
Deck Type:	Bolted	
Construction:	Sheet	
Deck Seam:	Sheet: 5 Ft Wide	
Deck Seam Len. (ft):		769.69

Deck Fitting/Status

	Quantity
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Slotted Guide-Pole/Sample Well/Ungask. Sliding Cover, w/o Float	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

N-829-16 BAE - 2016 (Riveted) - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 12)	Feb	57.96	53.17	62.75	61.57	6.1128	N/A	N/A	64.0000			92.00	Option 4: RVP=12, ASTM Slope=3
Gasoline (RVP 7)	Mar	60.22	54.36	66.07	61.57	3.5001	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Apr	63.26	55.98	70.54	61.57	3.1390	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	May	67.10	58.83	75.36	61.57	3.3942	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Jun	70.33	61.45	79.22	61.57	3.6226	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	Jul	72.25	63.02	81.48	61.57	4.4468	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Aug	71.45	62.84	80.06	61.57	3.7042	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Sep	69.03	61.28	76.77	61.57	3.5290	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Oct	64.64	58.13	71.16	61.57	3.2293	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 12)	Dec	54.98	51.51	58.44	61.57	5.7736	N/A	N/A	64.0000			92.00	Option 4: RVP=12, ASTM Slope=3

TANKS 4.0.9d **Emissions Report - Detail Format** **Detail Calculations (AP-42)**

N-829-16 BAE - 2016 (Riveted) - Internal Floating Roof Tank **Stockton, California**

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	29.8776	16.1337	14.4661	15.8064	17.0310	21.3474	17.4739	16.5258	14.9369			27.7483
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000		0.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000		0.4000
Value of Vapor Pressure Function:	0.1334	0.0678	0.0599	0.0655	0.0705	0.0897	0.0724	0.0684	0.0619			0.1239
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.1128	3.5001	3.1390	3.3942	3.6226	4.4468	3.7042	3.5290	3.2293			5.7736
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000		70.0000
Vapor Molecular Weight (lb/lb-mole):	64.0000	68.0000	69.0000	69.0000	69.0000	69.0000	68.0000	69.0000	69.0000	69.0000		64.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000
Withdrawal Losses (lb):	0.0451	0.0532	0.1281	0.0177	0.0489	0.0646	0.0546	0.0601	0.0520			0.0518
Number of Columns:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000
Effective Column Diameter (ft):	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000		0.7000
Net Throughput (gal/mo.):	16,556.0000	19,551.0000	47,083.0000	6,505.0000	17,986.0000	23,730.0000	20,062.0000	22,095.0000	19,106.0000			19,043.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015		0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000		5.6000
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000		70.0000
Deck Fitting Losses (lb):	51.5034	27.8114	24.9368	27.2472	29.3582	36.7988	30.1217	28.4874	25.7484			47.8328
Value of Vapor Pressure Function:	0.1334	0.0678	0.0599	0.0655	0.0705	0.0897	0.0724	0.0684	0.0619			0.1239
Vapor Molecular Weight (lb/lb-mole):	64.0000	68.0000	69.0000	69.0000	69.0000	68.0000	69.0000	69.0000	69.0000	69.0000		64.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000		72.4000
Deck Seam Losses (lb):	97.6003	52.7034	47.2560	51.6342	55.6345	69.7348	57.0814	53.9844	48.7940			90.6445
Deck Seam Length (ft):	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900			769.6900
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400			0.1400
Deck Seam Length Factor(ft/sqft):	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000			0.2000
Tank Diameter (ft):	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000		70.0000
Vapor Molecular Weight (lb/lb-mole):	64.0000	68.0000	69.0000	69.0000	69.0000	68.0000	69.0000	69.0000	69.0000	69.0000		64.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000		1.0000
Total Losses (lb):	179.0264	96.7017	86.7870	94.7055	102.0726	127.9455	104.7316	99.0577	89.5314			166.2773
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)			
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	1		25.00		0.00		0.00		113.3876			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1		1.60		0.00		0.00		7.2568			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		12.6994			
Slotted Guide-Pole/Sample Well/Ungask. Sliding Cover, w/o Float	1		43.00		270.00		1.40		195.0266			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-16 BAE - 2016 (Riveted) - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 12)	57.63	0.10	99.34	188.24	345.30
Gasoline (RVP 7)	37.48	0.12	64.61	122.44	224.65
Gasoline (RVP 6)	96.24	0.36	165.90	314.38	576.89

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification: N-829-16 BAE - 2017 (Riveted)
 City: Stockton
 State: California
 Company: NuStar Terminals Ops Partnership LP
 Type of Tank: Internal Floating Roof Tank
 Description: NuStar (TK 3301) - Gasoline - tank and fitting info based on project N-1191261

Tank Dimensions

Diameter (ft): 70.00
 Volume (gallons): 1,386,000.00
 Turnovers: 0.00
 Self Supp. Roof? (y/n): N
 No. of Columns: 1.00
 Eff. Col. Diam. (ft): 0.70

Paint Characteristics

Internal Shell Condition: Light Rust
 Shell Color/Shade: White/White
 Shell Condition: Good
 Roof Color/Shade: White/White
 Roof Condition: Good

Rim-Seal System

Primary Seal: Mechanical Shoe
 Secondary Seal: Rim-mounted

Deck Characteristics

Deck Fitting Category: Detail
 Deck Type: Bolted
 Construction: Sheet
 Deck Seam: Sheet: 5 Ft Wide
 Deck Seam Len. (ft): 769.69

Deck Fitting/Status

	Quantity
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	1
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Slotted Guide-Pole/Sample Well/Ungask. Sliding Cover, w/o Float	1

Meteorological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

N-829-16 BAE - 2017 (Riveted) - Internal Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 13)	Feb	57.96	53.17	62.75	61.57	6.6862	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3
Gasoline (RVP 8)	Mar	60.22	54.36	66.07	61.57	4.0615	N/A	N/A	68.0000			92.00	Option 4: RVP=8, ASTM Slope=3
Gasoline (RVP 6)	Apr	63.26	55.98	70.54	61.57	3.1390	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	May	67.10	58.83	75.36	61.57	3.3942	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Jun	70.33	61.45	79.22	61.57	3.6226	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	Jul	72.25	63.02	81.48	61.57	4.4468	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Aug	71.45	62.84	80.06	61.57	3.7042	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	Sep	69.03	61.28	76.77	61.57	4.1748	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Oct	64.64	58.13	71.16	61.57	3.2293	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 13)	Nov	58.87	54.21	63.53	61.57	6.8017	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3
Gasoline (RVP 14)	Dec	54.98	51.51	58.44	61.57	6.8705	N/A	N/A	62.0000			103.00	Option 4: RVP=14, ASTM Slope=3

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

N-829-16 BAE - 2017 (Riveted) - Internal Floating Roof Tank Stockton, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):		32.6098	19.1715	14.4661	15.8064	17.0310	21.3474	17.4739	19.8038	14.9369	33.3772	33.8399
Seal Factor A (lb-mole/ft-yr):		0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph)^n):		0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Value of Vapor Pressure Function:		0.1503	0.0806	0.0599	0.0655	0.0705	0.0897	0.0724	0.0832	0.0619	0.1538	0.1559
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):		6.6862	4.0615	3.1390	3.3942	3.6226	4.4468	3.7042	4.1748	3.2293	6.8017	6.8705
Tank Diameter (ft):		70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Vapor Molecular Weight (lb/lb-mole):		62.0000	68.0000	69.0000	69.0000	69.0000	68.0000	69.0000	68.0000	69.0000	62.0000	62.0000
Product Factor:		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):		0.1152	0.1717	0.1253	0.0219	0.1131	0.0354	0.0306	0.0217	0.0310	0.1118	0.0768
Number of Columns:		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Effective Column Diameter (ft):		0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000	0.7000
Net Throughput (gal/mo.):		42,326.0000	63,106.0000	46,055.0000	8,050.0000	41,554.0000	13,015.0000	11,228.0000	7,984.0000	11,391.0000	41,097.0000	28,229.0000
Shell Clingage Factor (bbl/1000 sqft):		0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):		5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):		70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Deck Fitting Losses (lb):		56.2131	33.0480	24.9368	27.2472	29.3582	36.7988	30.1217	34.1380	25.7484	57.5360	58.3336
Value of Vapor Pressure Function:		0.1503	0.0806	0.0599	0.0655	0.0705	0.0897	0.0724	0.0832	0.0619	0.1538	0.1559
Vapor Molecular Weight (lb/lb-mole):		62.0000	68.0000	69.0000	69.0000	69.0000	68.0000	69.0000	68.0000	69.0000	62.0000	62.0000
Product Factor:		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):		72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000	72.4000
Deck Seam Losses (lb):		106.5255	62.6269	47.2560	51.6342	55.6345	69.7348	57.0814	64.6924	48.7940	109.0323	110.5438
Deck Seam Length (ft):		769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900	769.6900
Deck Seam Loss per Unit Length Factor (lb-mole/ft-yr):		0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400	0.1400
Deck Seam Length Factor(ft/sqft):		0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000	0.2000
Tank Diameter (ft):		70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000	70.0000
Vapor Molecular Weight (lb/lb-mole):		62.0000	68.0000	69.0000	69.0000	69.0000	68.0000	69.0000	68.0000	69.0000	62.0000	62.0000
Product Factor:		1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total Losses (lb):		195.4636	115.0182	86.7842	94.7097	102.1367	127.9163	104.7075	118.6559	89.5104	200.0574	202.7942
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity	KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)				
Column Well (24-in. Diam.)/Pipe Col.-Sliding Cover, Gask.	1	25.00		0.00		0.00		141.9427				
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1	1.60		0.00		0.00		9.0843				
Automatic Gauge Float Well/Bolted Cover, Gasketed	1	2.80		0.00		0.00		15.8976				
Slotted Guide-Pole/Sample Well/Ungask. Sliding Cover, w/o Float	1	43.00		270.00		1.40		244.1415				

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-16 BAE - 2017 (Riveted) - Internal Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 14)	33.84	0.08	58.33	110.54	202.79
Gasoline (RVP 13)	65.99	0.23	113.75	215.56	395.52
Gasoline (RVP 8)	19.17	0.17	33.05	62.63	115.02
Gasoline (RVP 7)	41.15	0.06	70.94	134.43	246.57
Gasoline (RVP 6)	79.71	0.32	137.41	260.40	477.85

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification:	N-829-29-7 BAE 2016
City:	Stockton
State:	California
Company:	NuStar Terminals Ops Partnership LP
Type of Tank:	External Floating Roof Tank
Description:	NuStar (TK 80002) - Gasoline

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	0.73

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Detail

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status

	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

N-829-29-7 BAE 2016 - External Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 14)	Jan	55.08	51.49	58.67	61.57	6.8836	N/A	N/A	62.0000			103.00	Option 4: RVP=14, ASTM Slope=3
Gasoline (RVP 12)	Feb	57.96	53.17	62.75	61.57	6.1128	N/A	N/A	64.0000			92.00	Option 4: RVP=12, ASTM Slope=3
Gasoline (RVP 13)	Mar	60.22	54.36	66.07	61.57	6.9754	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3
Gasoline (RVP 7)	Apr	63.26	55.98	70.54	61.57	3.7224	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	May	67.10	58.83	75.36	61.57	3.3942	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	Jun	70.33	61.45	79.22	61.57	4.2834	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Jul	72.25	63.02	81.48	61.57	4.4468	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Aug	71.45	62.84	80.06	61.57	3.7042	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Sep	69.03	61.28	76.77	61.57	3.5290	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 9)	Oct	64.64	58.13	71.16	61.57	5.0485	N/A	N/A	67.0000			92.00	Option 4: RVP=9, ASTM Slope=3
Gasoline (RVP 12)	Nov	58.87	54.21	63.53	61.57	6.2196	N/A	N/A	64.0000			92.00	Option 4: RVP=12, ASTM Slope=3
Gasoline (RVP 12)	Dec	54.98	51.51	58.44	61.57	5.7736	N/A	N/A	64.0000			92.00	Option 4: RVP=12, ASTM Slope=3

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

N-829-29-7 BAE 2016 - External Floating Roof Tank Stockton, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	291.4614	262.9232	333.0098	177.8055	177.1820	228.8441	216.9299	168.4150	148.8898	203.0878	233.7445	229.6501
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000
Seal Factor B (lb-mole/ft-yr (mph) ⁿ):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	6.4000
Seal-related Wind Speed Exponent:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Value of Vapor Pressure Function:	0.1564	0.1334	0.1592	0.0728	0.0655	0.0858	0.0897	0.0724	0.0684	0.1046	0.1364	0.1239
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	6.8836	6.1128	6.9754	3.7224	3.3942	4.2834	4.4468	3.7042	3.5290	5.0485	6.2196	5.7736
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Vapor Molecular Weight (lb/lb-mole):	62.0000	64.0000	62.0000	68.0000	69.0000	68.0000	68.0000	69.0000	69.0000	67.0000	64.0000	64.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Withdrawal Losses (lb):	0.2339	0.2334	0.2955	0.2899	0.3498	0.3920	0.3630	0.4735	0.3567	0.4436	0.4096	0.3501
Net Throughput (gal/mo.):	136,408.0000	136,116.0000	172,351.0000	169,071.0000	203,999.0000	228,650.0000	211,706.0000	276,177.0000	208,031.0000	258,706.0000	238,901.0000	204,206.0000
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000
Roof Fitting Losses (lb):	423.9133	386.1024	507.3563	278.0150	287.3374	371.1182	337.7577	256.5884	220.7201	291.0522	324.8510	329.1196
Value of Vapor Pressure Function:	0.1564	0.1334	0.1592	0.0728	0.0655	0.0858	0.0897	0.0724	0.0684	0.1046	0.1364	0.1239
Vapor Molecular Weight (lb/lb-mole):	62.0000	64.0000	62.0000	68.0000	69.0000	68.0000	68.0000	69.0000	69.0000	67.0000	64.0000	64.0000
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	524.7621	542.7572	616.7321	674.2203	763.4998	763.4998	664.5234	616.7321	560.9550	498.1577	446.3940	498.1577
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	6.4000
Total Losses (lb):	715.6086	649.2589	840.6616	456.1103	464.8692	600.3543	555.0506	425.4769	369.9665	494.5836	559.0051	559.1198
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph ⁿ))		m		Losses(lb)			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2		1.60		0.00		0.00		22.0895			
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1		41.00		48.00		1.40		3,548.9317			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		19.3283			
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2		6.20		1.20		0.94		162.2702			
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1		0.47		0.02		0.97		3.9155			
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16		1.20		0.14		0.65		177.0625			
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15		0.49		0.16		0.14		71.5280			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1		0.71		0.10		1.00		8.4261			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-29-7 BAE 2016 - External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 6)	494.49	1.18	764.65	0.00	1,260.31
Gasoline (RVP 7)	623.58	1.04	986.89	0.00	1,611.52
Gasoline (RVP 9)	203.09	0.44	291.05	0.00	494.58
Gasoline (RVP 12)	726.32	0.99	1,040.07	0.00	1,767.38
Gasoline (RVP 13)	333.01	0.30	507.36	0.00	840.66
Gasoline (RVP 14)	291.46	0.23	423.91	0.00	715.61

TANKS 4.0.9d

Emissions Report - Detail Format

Tank Identification and Physical Characteristics

Identification

User Identification:	N-829-29-7 BAE 2017
City:	Stockton
State:	California
Company:	NuStar Terminals Ops Partnership LP
Type of Tank:	External Floating Roof Tank
Description:	NuStar (TK 80002) - Gasoline

Tank Dimensions

Diameter (ft):	110.00
Volume (gallons):	3,360,000.00
Turnovers:	0.73

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Detail

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status**Quantity**

Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Stockton, California (Avg Atmospheric Pressure = 14.72 psia)

TANKS 4.0.9d **Emissions Report - Detail Format** **Liquid Contents of Storage Tank**

N-829-29-7 BAE 2017 - External Floating Roof Tank
Stockton, California

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Gasoline (RVP 15)	Jan	55.08	51.49	58.67	61.57	7.4408	N/A	N/A	60.0000			92.00	Option 4: RVP=15, ASTM Slope=3
Gasoline (RVP 13)	Feb	57.96	53.17	62.75	61.57	6.6862	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3
Gasoline (RVP 13)	Mar	60.22	54.36	66.07	61.57	6.9754	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3
Gasoline (RVP 6)	Apr	63.26	55.98	70.54	61.57	3.1390	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	May	67.10	58.83	75.36	61.57	4.0186	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 6)	Jun	70.33	61.45	79.22	61.57	3.6226	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 6)	Jul	72.25	63.02	81.48	61.57	3.7638	N/A	N/A	69.0000			92.00	Option 4: RVP=6, ASTM Slope=3
Gasoline (RVP 7)	Aug	71.45	62.84	80.06	61.57	4.3778	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Sep	69.03	61.28	76.77	61.57	4.1748	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 7)	Oct	64.64	58.13	71.16	61.57	3.8272	N/A	N/A	68.0000			92.00	Option 4: RVP=7, ASTM Slope=3
Gasoline (RVP 13)	Nov	58.87	54.21	63.53	61.57	6.8017	N/A	N/A	62.0000			92.00	Option 4: RVP=13, ASTM Slope=3

TANKS 4.0.9d

Emissions Report - Detail Format

Detail Calculations (AP-42)

N-829-29-7 BAE 2017 - External Floating Roof Tank Stockton, California

Month:	January	February	March	April	May	June	July	August	September	October	November	December
Rim Seal Losses (lb):	314.4243	286.9664	333.0098	148.5186	212.2456	190.9091	180.8818	201.9358	178.4227	148.0258	255.2563	
Seal Factor A (lb-mole/ft-yr):	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	0.6000	
Seal Factor B (lb-mole/ft-yr (mph)*n):	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	0.4000	
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	
Seal-related Wind Speed Exponent:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Value of Vapor Pressure Function:	0.1743	0.1503	0.1592	0.0599	0.0796	0.0705	0.0737	0.0880	0.0832	0.0752	0.1538	
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	7.4408	6.6862	6.9754	3.1390	4.0186	3.6226	3.7638	4.3778	4.1748	3.8272	6.8017	
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	
Vapor Molecular Weight (lb/lb-mole):	60.0000	62.0000	62.0000	69.0000	68.0000	69.0000	69.0000	68.0000	68.0000	68.0000	62.0000	
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Withdrawal Losses (lb):	0.3669	0.2894	0.3515	0.3535	0.4040	0.3632	0.3917	0.4519	0.4139	0.4173	0.3898	
Net Throughput (gal/mo.):	213,994.0000	168,783.0000	204,987.0000	206,200.0000	235,630.0000	211,853.0000	228,460.0000	263,544.0000	241,418.0000	243,409.0000	227,334.0000	
Shell Clingage Factor (bbl/1000 sqft):	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	
Average Organic Liquid Density (lb/gal):	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	5.6000	
Tank Diameter (ft):	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	110.0000	
Roof Fitting Losses (lb):	457.3114	421.4098	507.3563	232.2224	344.2003	309.5987	281.6312	307.6589	264.5009	212.1409	354.7475	
Value of Vapor Pressure Function:	0.1743	0.1503	0.1592	0.0599	0.0796	0.0705	0.0737	0.0880	0.0832	0.0752	0.1538	
Vapor Molecular Weight (lb/lb-mole):	60.0000	62.0000	62.0000	69.0000	68.0000	69.0000	69.0000	68.0000	68.0000	68.0000	62.0000	
Product Factor:	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
Tot. Roof Fitting Loss Fact.(lb-mole/yr):	524.7621	542.7572	616.7321	674.2203	763.4998	763.4998	664.5234	616.7321	560.9550	498.1577	446.3940	
Average Wind Speed (mph):	6.7000	6.9000	7.7000	8.3000	9.2000	9.2000	8.2000	7.7000	7.1000	6.4000	5.8000	
Total Losses (lb):	772.1027	708.6656	840.7175	381.0946	556.8499	500.8710	462.9047	510.0466	443.3375	360.5840	610.3935	
Roof Fitting Loss Factors												
Roof Fitting/Status	Quantity		KF _a (lb-mole/yr)		KF _b (lb-mole/(yr mph*n))		m		Losses(lb)			
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	2		1.60		0.00		0.00		20.0439			
Slotted Guide-Pole/Sample Well/Gask. Sliding Cover, w. Pole Wiper	1		41.00		48.00		1.40		3,261.2951			
Automatic Gauge Float Well/Bolted Cover, Gasketed	1		2.80		0.00		0.00		17.5384			
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2		6.20		1.20		0.94		147.8922			
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1		0.47		0.02		0.97		3.5588			
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Sock	16		1.20		0.14		0.65		160.9265			
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Sock	15		0.49		0.16		0.14		64.9304			
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1		0.71		0.10		1.00		7.6775			

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

N-829-29-7 BAE 2017 - External Floating Roof Tank
Stockton, California

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 6)	520.31	1.11	823.45	0.00	1,344.87
Gasoline (RVP 7)	740.63	1.69	1,128.50	0.00	1,870.82
Gasoline (RVP 13)	875.23	1.03	1,283.51	0.00	2,159.78
Gasoline (RVP 15)	314.42	0.37	457.31	0.00	772.10

APPENDIX G

Actual Emissions Calculations

Actual Emissions Calculations:

Loading Rack Emissions (N-829-1, N-829-2, VCU (N-829-20)):

Emissions from the organic liquids loading operation include the following three sources of emissions: a) captured loading losses that vent to the VCU; b) disconnection emissions; and c) fugitive emissions from the components.

a) VCU Controlled Emissions:

Per provided historical operating records for 2017 and 2018 and the average source test value of 0.0041 lb-VOC/1000 gallons for the five previous source tests (2014 through 2018), the actual emissions are:

Emissions 2017 = 406,513,442 gal/year x 0.0041 lb/1000 gal = 1,667 lb VOC

Emissions 2018 = 457,541,000 gal/year x 0.0041 lb/1000 gal = 1,876 lb VOC

$$AE = (1,667 \text{ lb} + 1,876 \text{ lb}) \div 2 = 1,772 \text{ lb-VOC}$$

b) Disconnection emissions:

Per applicant, the maximum annual loadout events for both loading racks combined are 54,003 events per year that calculated based on the throughput ratio of the historical operating records and the potential throughput limit $(432,027,221 \text{ (gal/yr)}/756,000,000 \text{ (gal/yr)}) \times 94,500 \text{ (event/year)}$, the number of disconnect per each loadout event is 8 disconnects per loading event, the worst-case density of organic liquid loaded through the loading rack is 6.76 pounds per gallon. The annual disconnection emissions are calculated as follows:

$$\begin{aligned} AE_{\text{Disconnect}} &= 8 \text{ mL/disconnect} \times 54,003 \text{ event/year} \times 8 \text{ disconnect/event} \times 1 \text{ gal}/3785.41 \text{ mL} \\ &\quad \times 6.76 \text{ lb/gal} \\ &= 6,127 \text{ lb-VOC/yr} \end{aligned}$$

c) Fugitive Emissions:

AE fugitive components emissions from the loading racks are equal to 204 lb-VOC/yr and 270 lb-VOC/yr, respectively.

Total Loading Rack Emissions	AE (lb-VOC/year)
Controlled Emissions	1,772
Disconnection Emissions	6,127
Fugitive Emissions	474 (204 + 270)
VCU NOx from Combustion	0
Total	8,373

N-829-16 & -29 (Storage Tanks)

The AE from these storage tanks was obtained using the average throughputs reported for the Emission Inventory for 2017 and 2018.

Project Actual Emissions:

Permit Unit	AE (lb-VOC/year)
N-829-1, N-829-2, and N-829-20	8,373
N-829-16	881
N-829-29	10,793
Total	20,447

APPENDIX H

BACT Guidelines

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 7.3.3*

Last Update 10/1/2002

**Petroleum and Petrochemical Production - Floating Roof Organic
Liquid Storage or Processing Tank, = or > 471 bbl Tank capacity, = or > 0.5 psia
TVP**

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	95% control (Primary metal shoe seal with secondary wiper seal, or equal)	95% Control (Dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal.)	

BACT is the most stringent control technique for the emissions unit and class of source. Control techniques that are not achieved in practice or contained in a state implementation plan must be cost effective as well as feasible. Economic analysis to demonstrate cost effectiveness is required for all determinations that are not achieved in practice or contained in an EPA approved State Implementation Plan.

***This is a Summary Page for this Class of Source**

APPENDIX I

BACT Analysis

Top-Down BACT Analysis for VOC emissions from the modified organic liquid loading racks

N-829-1 & -2

The following VOC emission control technologies are listed in BACT guideline 7.1.10 for organic liquid loading racks:

Step 1 - Identify all control technologies

Achieved in Practice or contained in the SIP:

Bottom fill loading (submerged pipe fill loading) with dry break couplers, or equivalent, and VOC emissions from the vapor collection and control system less than or equal to 0.015 pounds per 1,000 gallons of organic liquid transferred.

Technologically Feasible:

There are not technologically feasible control options listed in this guideline.

Alternate Basic Equipment:

There is no alternate basic equipment listed in this guideline.

Step 2 - Eliminate technologically infeasible options

There is no technologically infeasible option.

Step 3 - Rank remaining options by control effectiveness

There is only one control option listed, so a ranking is not necessary.

Step 4 - Cost Effectiveness Analysis

The only control option listing is achieved-in-practice, so a cost effectiveness analysis is not required.

Step 5 - Select BACT

Each of these existing storage tanks is equipped with both primary metal shoe seal and secondary wiper seal. Therefore, BACT for VOC emissions is satisfied.

Top-Down BACT Analysis for VOC emissions from the modified floating roof organic liquid storage tanks

N-829-16 & -29

The following VOC emission control technologies are listed in BACT guideline 7.3.3, 1st quarter of 2019 for petroleum and petrochemical production – floating roof organic liquid storage or processing tank with tank capacity equal to or greater than 471 bbl, or the true vapor pressure is equal to or greater than 0.5 psia as follows:

Step 1 - Identify all control technologies

Achieved in Practice or contained in the SIP:

95% control (primary metal shoe seal with secondary wiper seal, or equal)

Technologically Feasible:

95% control (dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal)

Alternate Basic Equipment:

There is no alternate basic equipment listed on this guideline.

Step 2 - Eliminate technologically infeasible options

There is no technologically infeasible option.

Step 3 - Rank remaining options by control effectiveness

The technologically feasible and achieved-in-practice have the same control effectiveness.

1. 95% control (dual wiper seal with drip curtain or primary metal shoe seal with secondary wiper seal, or equal)
2. 95% control (primary metal shoe seal with secondary wiper seal, or equal)

Step 4 - Cost Effectiveness Analysis

The existing internal floating roof storage tank (N-829-16) and the domed external floating roof storage tank (N-829-29) are each equipped with both primary metal shoe seal and secondary wiper seal, which provide a minimum of 95% control of VOC emissions. These seals are equivalent to the control requirements listed in the technologically feasible option. Therefore, a cost effectiveness analysis is not performed.

Step 5 - Select BACT

Each of these existing storage tanks is equipped with both primary metal shoe seal and secondary wiper seal. Therefore, BACT for VOC emissions is satisfied.

APPENDIX J
Compliance Certification



June 14, 2019

Mr. Nick Peirce
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto, CA 95356-8718

Subject: Compliance Statement for NuStar Terminals Operations Partnership L.P.

Dear Mr. Peirce:

In accordance with District Rule 2201, Section 4.15, "Additional Requirements for New Major Sources and Federal Major Modifications," NuStar Terminals Operations Partnership L.P. is pleased to provide this compliance statement regarding its proposed bulk terminal ethanol receiving and loadout project N-1181193.

All major stationary source in California owned or operated by NuStar Terminals Operations Partnership L.P., or by any entity controlling, controlled by, or under common control with NuStar Terminals Operations Partnership L.P., and which are subject to emission limitations, are in compliance or on a schedule for compliance with all applicable emission limitations and standards. These sources include one or more of the following facilities:

Facility #1: NuStar Terminals Operations Partnership L.P.
2941 Navy Drive
Stockton, CA 95286

Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Please contact me if you have any questions regarding this compliance statement.

Sincerely,

Rob Hill, Vice President HSE
NuStar Energy

APPENDIX K

EPA Document Number 2011-15416

Abstract Number 1000021 –

External Floating Roof Tank Enclosed with Fixed Roof

Accessibility: For information on access or services for individuals with disabilities, please contact Mr. Aaron Yeow at (202) 564–2050 or yeow.aaron@epa.gov. To request accommodation of a disability, please contact Mr. Yeow preferably at least ten days prior to the teleconference to give EPA as much time as possible to process your request.

Dated: June 14, 2011.

Anthony F. Maciorowski,
Deputy Director, EPA Science Advisory Staff Office.

[FR Doc. 2011–15414 Filed 6–20–11; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–9321–1]

Recent Posting to the Applicability Determination Index (ADI) Database System of Agency Applicability Determinations, Alternative Monitoring Decisions, and Regulatory Interpretations Pertaining to Standards Under the Clean Air Act

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Availability.

SUMMARY: This notice announces applicability determinations, alternative monitoring decisions, and regulatory interpretations that EPA has made under the New Source Performance Standards (NSPS); the National Emission Standards for Hazardous Air Pollutants (NESHAP); and the Stratospheric Ozone Protection Program.

FOR FURTHER INFORMATION CONTACT: An electronic copy of each complete document posted on the Applicability Determination Index (ADI) database system is available on the Internet through the Office of Enforcement and Compliance Assurance (OECA) Web site at: <http://www.epa.gov/compliance/monitoring/programs/caa/adi.html>. The document may be located by control number, date, author, subpart, or subject search. For questions about the ADI or this notice, contact Maria Malave at EPA

by phone at: (202) 564–7027, or by e-mail at: malave.maria@epa.gov. For technical questions about the individual applicability determinations or monitoring decisions, refer to the contact person identified in the individual documents, or in the absence of a contact person, refer to the author of the document.

SUPPLEMENTARY INFORMATION:

Background

The General Provisions to the NSPS in 40 Code of Federal Regulations (CFR) Part 60 and the General Provisions to the NESHAP in 40 CFR part 61 provide that a source owner or operator may request a determination of whether certain intended actions constitute the commencement of construction, reconstruction, or modification. EPA's written responses to these inquiries are commonly referred to as applicability determinations. See 40 CFR 60.5 and 61.06. Although the part 63 NESHAP [which includes Maximum Achievable Control Technology (MACT) standards] and section 111(d) of the Clean Air Act (CAA) regulations contain no specific regulatory provision that sources may request applicability determinations, EPA responds to written inquiries regarding applicability for the part 63 and section 111(d) programs as well. The NSPS and NESHAP also allow sources to seek permission to use monitoring or recordkeeping that are different from the promulgated requirements. See 40 CFR 60.13(i), 61.14(g), 63.8(b)(1), 63.8(f), and 63.10(f). EPA's written responses to these inquiries are commonly referred to as alternative monitoring decisions. Furthermore, EPA responds to written inquiries about the broad range of NSPS and NESHAP regulatory requirements as they pertain to a whole source category. These inquiries may pertain, for example, to the type of sources to which the regulation applies, or to the testing, monitoring, recordkeeping, or reporting requirements contained in the regulation. EPA's written responses to these inquiries are commonly referred to as regulatory interpretations.

EPA currently compiles EPA-issued NSPS and NESHAP applicability

determinations, alternative monitoring decisions, and regulatory interpretations, and posts them on the ADI on a quarterly basis. In addition, the ADI contains EPA-issued responses to requests pursuant to the stratospheric ozone regulations, contained in 40 CFR part 82. The ADI is an electronic index on the Internet with over one thousand EPA letters and memoranda pertaining to the applicability, monitoring, recordkeeping, and reporting requirements of the NSPS, NESHAP, and stratospheric ozone regulations. The letters and memoranda may be searched by date, office of issuance, subpart, citation, control number, or by string word searches.

Today's notice comprises a summary of 47 such documents added to the ADI on May 25, 2011. The subject and header of each letter and memorandum are listed in this notice, as well as a brief abstract of the letter or memorandum. Complete copies of these documents may be obtained from the ADI through the OECA Web site at: <http://www.epa.gov/compliance/monitoring/programs/caa/adi.html>

Summary of Headers and Abstracts

The following table identifies the database control number for each document posted on the ADI database system on May 25, 2011; the applicable category; the subpart(s) of 40 CFR part 60, 61, or 63 (as applicable) covered by the document; and the title of the document, which provides a brief description of the subject matter. We have also included an abstract of each document identified with its control number after the table. These abstracts are provided solely to alert the public to possible items of interest and are not intended as substitutes for the full text of the documents. This notice does not change the status of any document with respect to whether it is "of nationwide scope or effect" for purposes of section 307(b)(1) of the Clean Air Act. For example, this notice does not make an applicability determination for a particular source into a nationwide rule. Neither does it purport to make any document that was previously non-binding into a binding document.

ADI DETERMINATIONS UPLOADED ON APRIL X, 2011

Control number	Categories	Subparts	Title
M090044	MACT	A, RRR	Alternate Operating Scenarios for Production Furnace
1000001	NSPS	VVV	Installation of a Pigment Mixing and Milling Process
1000002	MACT, NSPS.	AAAA, WWW.	Gas Treatment System Used for Energy Recovery Purposes
1000003	NSPS	WWW	Monitoring Lids of Gas Well Sumps as 'Surface' of the Landfill
M100001	MACT	EEEE	Once In Always In Policy
M100002	MACT	MMMM	Use of Non-Regenerative Carbon Adsorption System

ADI DETERMINATIONS UPLOADED ON APRIL X, 2011—Continued

Control number	Categories	Subparts	Title
M100004	MACT	NNNNN	Alternative Control Device Operating Parameters
M100005	MACT	FFFF, JJJ ...	Solid State Polymerization PET Process
M100006	MACT	EEE	Excess Emissions Reporting for a Waste Liquid Fuel-Fired Boiler
1000004	NSPS	A, Db	Boiler Modification
1000007	NSPS	Y	Alternative Monitoring
1000008	NSPS	WWW	Landfill Gas Treatment System
M100009	MACT	M	Secondary Carbon Adsorption Requirements for Resold Equipment
1000009	NSPS	WWW	Landfill Gas Operating Temperatures
M100010	MACT	EEE	Minimum Secondary Combustion Chamber Temperature Operating Parameter Limit
1000011	NSPS	CCCC	Thermal Destruction Unit Determination
M100012	MACT	JJ	Relocation of Facility and Reduction of Emissions after NESHAP Compliance Date
1000012	NSPS	Dc, IIII	Alternative Method for Fuel Supplier Certification
1000013	NSPS	G, H	Use of Method 7E at Nitric Acid Plants and Method 6C at Sulfuric Acid Plants
1000015	NSPS	KKKK	Commence Construction for Gas Turbine
1000016	NSPS	GG, KKKK ...	Commence Construction for Gas Turbine
1000017	NSPS	A, AAa	Installation of a Capacitor Bank and Tuned Reactor
1000019	NSPS	AAAA	Conversion of Post-Sorted Municipal Solid Waste Feedstock
M100014	MACT	R	Alternative Monitoring Plan
M100015	MACT	EEE	Alternative Monitoring Plan
M100016	MACT	EEE	Modification of Alternative Monitoring Plan
M100017	MACT	EEE	Modification of Alternative Monitoring Plan
M100018	MACT	GGG	Alternative Monitoring of Hydrochloric Acid (HCl) Bubbler Control Device
1000021	NSPS	Kb	External Floating Roof Tank Enclosed with Fixed Roof
1000022	NSPS	WWW	Amended Design Capacity Reports
A100001	Asbestos	M	Removal of Asbestos Containing Coating Materials from Stator Bars
M100019	MACT	EEEEEE	Cold Core Machines Used for Capture and Wet Acid Scrubbers
1000023	NSPS	KKKK	Installation of Combustion Turbines and Direct-Fired Heaters
1000024	NSPS	Ja	Mining of Naturally Occurring Oil Sands and Extraction of Bitumen
M100020	MACT	EEE	Alternative Monitoring Plan
M100021	MACT	RRR	Alternative Monitoring Plan
M100022	MACT	EEE	Comprehensive Performance Test Plan
1000025	NSPS	A, NNN, RRR.	Alternative Monitoring Plan
M100023	MACT	PPPPP	Appropriate Method for Calculating Reconstruction
M100024	MACT	RRR	Startup, Shutdown, Malfunction Reporting Requirements
1000026	NSPS	Kb	Alternative Monitoring Plan
Z100001	NESHAP	FF	Sour Water Streams Regulation
M100025	MACT	EEE	Alternative Operating Parameters
M100026	MACT	EEE	Modification of Alternative Monitoring Plan
M100027	MACT	EEE	Alternative Monitoring Plan
M100028	MACT	EEE	Modification of Alternative Monitoring Plan
A110001	NESHAP	M	Asbestos NESHAP: Municipalities demolishing and renovating multiple residential structures as part of an "urban renewal" project.

Abstracts*Abstract for [M090044]*

Q1: Does 40 CFR part 63, subpart RRR, allow Kaiser Aluminum Fabricated Products, Inc., the owner/operator of a secondary aluminum production furnace, to switch back and forth between group 1 and group 2 furnace operation at a regular or even infrequent basis, depending on what its being fed to the furnace at any given time, and turn the control device on and off depending on the operating scenario?

A1: No. MACT subpart RRR does not allow for the furnace to be designated group 1 and 2 at the same time, depending on what it's being feed to the furnace. However, the owner/operator may choose to re-designate a furnace on

a very infrequent basis along with a permit modification.

Q2: Does 40 CFR part 63, subpart RRR, allow an owner/operator to operate the furnace as a group 1 furnace, accepting an undefined mix of clean and purchased scrap and a fluxing agent, with the baghouse not operating?

A2: No. A group 1 furnace cannot be authorized to operate under more than one set of operating parameters depending on what is being fed to the furnace at any given time and the use of a control device or not. MACT subpart RRR addresses a single worst-case scenario when conducting a performance test to establish operating parameters, and does not address alternate operating scenarios.

Abstract for [1000001]

Q1: Are two mixing vessels and two milling machines being installed at the Majilite facility in Dracut, Massachusetts, considered coating mix preparation equipment under 40 CFR part 60, subpart VVV?

A1: Because Majilite's mixing vessels will be blending solvent with other materials to prepare pigments that are used to prepare polymeric coatings, the pigment mixing vessels are coating mix preparation equipment subject to NSPS subpart VVV. The milling machines, however, do not fit within the rule definition of coating mix preparation equipment.

Q2: Majilite operates one coating line subject to NSPS, subpart VVV, and that this coating line and coating mix

operation use more than 130 Mg of VOC per year. What are the requirements under 40 CFR part 60, subpart VVV, for the coating mix preparation equipment if the pigment mixing vessels are being installed without concurrent construction of a control device?

A2: EPA has determined that because Majilite's subpart VVV coating operation and associated coating mix preparation equipment use at least 130 Mg of VOC per 12-month period and the pigment mixing vessels are being installed without concurrent construction of a control device, Majilite must meet the requirements of 60.742(c)(2) for its pigment mixing vessels, among other requirements.

Abstract for [1000002]

Q: Do the processes which occur in the preliminary treatment system at Waste Management of New Hampshire's (WMNH) Turnkey Recycling and Environmental Enterprise (TREE) facility in Rochester, New Hampshire, meet the requirements for a "treatment system" under 40 CFR 60.752(b)(2)(iii)(C)?

A: Yes. EPA has determined that the preliminary treatment system located at WMNH in which the gas has been compressed, dewatered, and filtered down to 10 microns meets the criteria of a treatment system under 40 CFR 60.752(b)(2)(iii)(C), and is not subject to the monitoring and recordkeeping requirements of 40 CFR 60.756(b) and 40 CFR 60.758(b) and (c).

Abstract for [1000003]

Q: Does EPA approve the request of Allied Imperial Landfill in Imperial, Pennsylvania to monitor some landfill gas well sump structure lids as though they were the "surface" of the landfill, in accordance with 40 CFR part 60, subpart WWW?

A: Yes. EPA finds that monitoring the sump lids is adequate to fulfill the requirements of NSPS subpart WWW based on the intent of NSPS subpart WWW and the sump structure construction. Monitoring inside the sump structure could create an artificially elevated value for the landfill gas well(s). If a landfill gas extraction well (LGFW) monitoring event indicates readings above 500 ppm around the circumference of the fiberglass structure, and/or lid of the structure, then corrective actions must be completed, as required by NSPS subpart WWW.

Abstract for [M100001]

Q: The Pactiv facility located in Winchester, Virginia, must comply with 40 CFR part 63, subpart EEEE, the

organic liquid distribution (OLD) MACT, due to a hazardous air pollutant (HAP) in a foaming agent used at the facility. Were the facility to switch the foaming agent to one that uses less than 5 percent HAPS would the OLD MACT apply?

A: Yes. The new foaming agent still contains HAPs, and according to the "Once in Always In" Policy, the OLD MACT still applies.

Abstract for [M100002]

Q: Does EPA approve the use of a non-regenerative carbon adsorption system as the control technology under 40 CFR part 63, subpart MMMM, for the metal parts coating operations of East Penn Manufacturing in Lyon Station, Pennsylvania?

A: Yes. EPA approves this request based on the conditions set forth in this letter, and provided that the request does not relieve East Penn of any other requirements of MACT subpart MMMM.

Abstract for [M100004]

Q: Does EPA approve alternative operating parameters under 40 CFR part 63, subpart NNNNN, for the Irgafos V-47 caustic scrubber at the Ciba Corporation facility in McIntosh, Alabama?

A: No. EPA cannot approve the requested alternatives without evaluating the performance test data that is collected using these proposed alternative parameters which needs to be submitted by Ciba Corporation to demonstrate compliance with the applicable emission limit set out in Table 1 of MACT subpart NNNNN.

Abstract for [M100005]

Q: Is the polyethylene terephthalate (PET) solid state polymerization (SSP) process at the DAK Americas facility in Cooper River, South Carolina, subject to 40 CFR part 63, subpart FFFF?

A: Yes. The SSP process is a miscellaneous organic chemical manufacturing process unit (MCPU) which manufactures a product, PET, which is described by the North American Industry Classification System 325. In doing so, it, generates a hazardous air pollutant (HAP), acetaldehyde. The MCPU is located at a major source of HAP. Thus, the SSP process satisfies all of the conditions for applicability under MACT subpart FFFF, specifically 40 CFR 63.2435 (a) and (b)(1) through (3).

Abstract for [M100006]

Q: Does EPA waive excess emissions reporting requirements under 40 CFR part 63, subpart EEE, for a waste liquid fuel-fired boiler system (WFBS) at the

Diversified Scientific Services facility in Kingston, Tennessee, if the unit is equipped with an automatic fuel cutoff?

A: No. EPA does not waive the excess emissions reporting requirements of MACT subpart EEE even when the WFBS has safe guards that minimizes emissions because there remain numerous reportable situations involving continuous monitoring system devices, such as opacity monitors, thermocouples, pressure transducers, and flow meters, that could malfunction and that should be included in the required report.

Abstract for [1000004]

Q1: Is the exemption in section 60.14(e)(4) of the General Provisions applicable to Power Boiler No. 6, at Rayonier Performance Fibers, in Fernandina Beach, Florida, even though the emission rate of nitrogen oxide (NO_x) will increase, such that it will cause the boiler to not become subject to NSPS subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating?

A1: Yes. Even though there will be an increase in the NO_x emission rate, the operational or physical changes made at the facility are not considered modifications under 40 CFR 60.14(e) of the General Provisions. Thus, the changes did not subject the Power Boiler No. 6 to NSPS subpart Db.

Q2: An interpretation of the reference in 40 CFR 60.14(e)(4) to the "facility's construction specifications" is requested for Power Boiler No. 6. The boiler was purchased by Rayonier as a traveling grate boiler and was later converted to a bubbling fluidized bed boiler.

A2: The exemption in 40 CFR 60.14(e)(4) relates to the construction specifications prior to the date a standard becomes applicable to a source category. Because the applicability date for 40 CFR part 60, subpart Db, is June 18, 1984, 40 CFR 60.14(e)(4) relates to the construction specifications for Power Boiler No. 6 prior to that date.

Abstract for [1000007]

Q: Does EPA grant the request of Detroit Edison's River Rouge Power Plant in River Rouge, Michigan, to eliminate the requirement for temperature monitors on the gas stream exits of the thermal dryers?

A: No. Continuous temperature monitoring, as required in 40 CFR 60.256(a) (1), indicates compliance status with respect to the carbon monoxide (CO) limits. The temperature record ensures the source temperature correlates with the results of performance tests or other emissions

tests. Monitoring temperature is essential because improperly tuned operations at off-design levels decrease combustion efficiency resulting in increased CO emissions. Additionally, Detroit Edison has not requested an alternative form of monitoring (see 60 CFR 60.13(i)), but rather the elimination of the monitoring requirements. EPA is unable to grant this request because the Region does not have authority to amend NSPS subpart Y.

Abstract for [1000008]

Q: Does the landfill gas treatment system proposed by the City of Midland, Michigan, meet the requirements that allow the landfill gas to be exempt from control requirements per 40 CFR 60.752(b)(2)(iii)(C) when burned in internal combustion engines? A: Yes. Because the proposed landfill gas treatment system will use 10-micron filtration and sufficient dewatering, it meets the current requirements used by EPA for gas "treatment" and is therefore exempt from the requirements of 40 CFR 60.752(b)(2)(iii)(C).

Abstract for [M100009]

Q: Is dry cleaning equipment that was initially installed prior to December 21, 2005, but was removed from its original location, sold to a new owner, and relocated subsequent to December 21, 2005, subject to the area source, non-residential carbon adsorption requirements at 40 CFR 63.322(o)(2)?

A: Yes. Reselling and relocating dry cleaning equipment constitutes installation of a dry cleaning system. Therefore dry cleaning equipment that is resold and relocated would be subject to the secondary carbon adsorption requirements of 40 CFR 63.322(o)(2).

Abstract for [1000009]

Q: Does EPA approve higher landfill gas temperatures under 40 CFR 60.753(c) for specific extraction and leachate wells at Veolia's Glacier Ridge Landfill near Horicon, Wisconsin?

A: Yes. Because the proposed operating limit of 148 degrees Fahrenheit is properly supported by data that shows there would be a minimal risk of a landfill fire or significantly inhibited anaerobic decomposition, EPA approves the higher landfill gas temperatures under 40 CFR 60.753(c).

Abstract for [M100010]

Q: Does EPA approve a request to waive the minimum secondary combustion chamber temperature operating parameter limit under 40 CFR part 63, subpart EEE, for the Heritage-

WTI (WTI) facility in East Liverpool, Ohio?

A: No. EPA concludes that the rotary kiln and the secondary combustion chamber (SCC) are separate combustion chambers and thus does not approve the request under MACT subpart EEE. WTI cannot legitimately argue that the SCC at its facility does not contain a steady-state, or near steady-state, process wherein fuel, hazardous waste, and oxidizer (*i.e.*, pure oxygen or ambient air) feed rates are controlled, since the SCC is engineered to allow WTI to feed pure oxygen or ambient air into the SCC to improve combustion. EPA concludes that the SCC is an area in which controlled flame combustion of hazardous waste occurs. Therefore, EPA disapproves WTI's request in its original and revised comprehensive performance test plans to determine that the Rotary Kiln and the SCC are one combustion chamber and to eliminate the need for a minimum combustion chamber temperature operating parameter limit.

Abstract for [1000011]

Q: Does 40 CFR part 60, subpart CCCC, apply to the thermal destruction unit operated by PIKA International in Calhoun County, Arkansas?

A: Yes. NSPS subpart CCCC applies because the waste that is burned (1) Is a RCRA solid waste, but not a RCRA hazardous waste; (2) meets the definition of a commercial solid waste; and (3) is not eligible for any exemptions under NSPS subpart CCCC. In addition, NSPS subpart CCCC applies as a result of the date construction began on the incinerator.

Abstract for [M100012]

Q: If Riceland Cabinet's (Riceland) facility in Orville, Ohio, which is subject to 40 CFR part 63, subpart JJ, relocates its facility and reduces its emission to area source status thresholds after the NESHAP compliance date, does it remain subject to the MACT subpart JJ and Title V Permitting requirements?

A: Yes. The relocated facility would be considered an existing source under MACT subpart JJ. The relocated facility would also be required to obtain a Title V Permit. The "Once In Always In" Policy (OIAI Policy) allows new sources the option to comply with federally enforceable limits after the compliance date in order to not be subject to the NESHAP. However, a relocated facility cannot be defined as a new source for the purposes of the NESHAP. To be considered a new source, a source would have to be constructed after the compliance date; however, relocating a facility is not construction according to

NESHAP definition of construction. Construction is defined as the on-site fabrication, erection, or installation of an affected source. Construction does not include the removal of all equipment comprising an affected source from an existing location and reinstallation of such equipment at a new location. Any source that is not a new source is defined as an existing source.

Abstract for [1000012]

Q: Does EPA approve the use of alternative method ASTM D975-07b for fuel certification under 40 CFR part 60, subpart Dc, in lieu of ASTM D396 for Quest Diagnostics in Chantilly, Virginia?

A: Yes. ASTM D975-07b is more stringent than ASTM D396 in all cases except viscosity, which will not affect sulfur dioxide emissions, and thus is acceptable under NSPS subpart Dc.

Abstract for [1000013]

Q1: Is Method 7E an allowable alternative test method for measuring nitrogen oxide (NOx) emissions at nitric acid plants for the purposes of determining compliance with 40 CFR part 60, subpart G?

A1: No. Method 7E is not approved for use to demonstrate compliance with NSPS subpart G.

Q2: Is Method 6C an allowable alternative test method for measuring sulfur dioxide (SO₂) emissions at sulfuric acid plants for the purposes of determining compliance with 40 CFR part 60, subpart H?

A2: No. Method 6C is not approved for use to demonstrate compliance with NSPS subpart H.

Abstract for [1000015]

Q: Will EPA reconsider its February 8, 2006 determination that 40 CFR part 60, subpart KKKK, applies to a turbine at Great River Energy in Cambridge, Minnesota?

A: No. The request does not provide any new information that would cause the Agency to reconsider the February 8, 2006 determination that NSPS subpart KKKK applies.

Abstract for [1000016]

Q: Did construction commence on the proposed installation of a gas turbine at Great River Energy (GRE) in Cambridge, Minnesota, before the applicability date of 40 CFR part 60, subpart KKKK?

A: No. GRE did not begin installation of the turbine nor enter into a contractual obligation to undertake and complete within a reasonable time a continuous program of construction for the installation of the turbine prior to

the applicability date of 40 CFR part 60, subpart KKKK.

Abstract for [1000017]

Q1: Is the installation of a capacitor bank and tuned reactor at the electrical substation servicing an electric arc furnace (EAF) at the Alton Steel, Inc. facility, a physical or operational change to an existing EAF under 40 CFR 60.14 of the General Provisions?

A1: Yes. The capacitor/reactor project increased the capacity (*i.e.*, the production rate) of the existing EAF and is therefore an operational change to the EAF under 40 CFR 60.14, which resulted in a kilogram per hour increase in the emission rate of particulate matter.

Q2: Is the capacitor/reactor project exempt from the definition of “modification” because it is “routine maintenance, repair, or replacement” under 40 CFR 60.14(e)(1)?

A2: No. The capacitor/reactor project was not routine maintenance, repair, or replacement under 40 CFR 60.14(e)(1).

Q3: Is the capacitor/reactor project not subject to 40 CFR part 60, subpart AAa because it is not considered “modification” based on the capital expenditure exemption at 40 CFR 60.14(e)(2)?

A3: Yes. The capacitor/reactor project allowed the EAF to increase the rate of production but involved no capital expenditure on the “existing facility” (*i.e.*, the EAF as it is defined at 40 CFR 60.271(a)). All of the monetary expenditure associated with the project involved replacing components and adding new components to the electrical substation that supplies power to the EAF. Because the capital expenditure exemption at 40 CFR 60.14(e)(2) applies, the capacitor/reactor project has not triggered the applicability of NSPS subpart AAa.

Abstract for [1000019]

Q1: Does 40 CFR part 60, subpart AAAA, apply to the syngas gasification process at Fulcrum BioEnergy’s (Fulcrum) proposed facility in McCarran, Nevada?

A1: No. Because Fulcrum’s proposed syngas gasification process is neither combustion nor pyrolysis, the syngas generation unit is not considered a “pyrolysis/combustion unit” or “municipal waste combustion unit” as defined in NSPS subpart AAAA.

Q2: Does 40 CFR part 60, subpart AAAA, apply to the combined cycle combustion turbine if the facility meets the requirements for the small power production facility exemption or the cogeneration facility exemption?

A2: No. 40 CFR 60.1020(b) and (c) list the requirements that a facility must meet to be exempt from NSPS subpart AAAA as a small power production facility or cogeneration facility. Those requirements include meeting criteria established by the Federal Power Act, combusting homogeneous waste, and providing notification and documentation to EPA. EPA concurs with Fulcrum’s assessment that the gasified waste would be considered homogeneous. However, to qualify for either of the facility exemptions Fulcrum would also need to provide appropriate notification and documentation that it meets the criteria established by the Federal Power Act.

Q3: Does 40 CFR part 60, subpart AAAA, apply to the air pollution control flare?

A3: No. As long as the flare is operated solely as an air pollution control device, it is excluded from the definition of “municipal waste combustion unit” under NSPS subpart AAAA.

Abstract for [M100014]

Q: Does EPA approve NuStar Logistics (“NuStar”) request for alternative monitoring of emissions under 40 CFR part 63, subpart R, of continuous presence of a pilot flame for the vapor combustion unit (VCU) in lieu of temperature monitoring at the firebox at its bulk gasoline terminal in Colorado Springs, Colorado?

A: EPA does not approved NuStar alternative monitoring request because it does not demonstrate meeting the requirements of 40 CFR 63.8(f)(4), 63.427(a)(5), and 63.428(c)(3)). Additional information needs to be provided within 30 calendars days after receipt of this letter. [Additional information was not provided.]

Abstract for [M100015]

Q: Does EPA approve the request of the Tooele Chemical Agent Disposal Facility (TOCDF) in Stockton, Utah, to waive the requirement to establish, and subsequently monitor, at the Deactivation Furnace System (DFS), a 12-hour rolling average (HRA) feed rate for mercury, ash, semi- and low-volatile metals, and chlorine required by 40 CFR 63.1290(l), (m), (n), and (o), respectively?

A: EPA conditionally approves TOCDF’s request to waive the requirement to establish, and subsequently monitor, at the DFS, a 12-HRA feed rate for mercury, ash, semi- and low-volatile metals, and chlorine required by 40 CFR 63.1290(l), (m), (n), and (o), respectively. EPA’s approval is limited to when burster and fuze pairs

from 4.2” HD mortars, HT mortars, and minimal amounts of process generated waste such as agent contaminated rags and small metal parts are fed to the DFS. Additionally, EPA’s approval is based on a feed rate to the DFS of combined 4.2” mortar burster/fuze pairs of 274/ hour, as well as the RCRA Permit limits for process generated waste, and TOCDF’s commitment to monitor and comply with those limits.

Abstract for [M100016]

Q: Does EPA approve the request of the Tooele Chemical Agent Disposal Facility (TOCDF) located in Stockton, Utah, under 40 CFR part 63, subpart EEE, to modify the first condition of the approved alternative monitoring request (AMR) of April 27, 2006, to also include munitions processing? The first condition states that “this approval shall apply only to the Baseline Processing phase of the TOCDF Mustard campaign which restricts processing to only those ton containers (TCs) in which the level of Hg in the liquid phase is less than 1 ppm”?

A: Yes. EPA approves modifying the scope of the AMP request to include the processing of the above TCs, munitions, and secondary waste. Based on the information provided, EPA believes that TOCDF can process the additional TCs, munitions, and secondary waste and maintain compliance with 40 CFR part 63, subpart EEE standards.

Abstract for [M100017]

Q: Does EPA approve under 40 CFR part 63, subpart EEE, the request of the Tooele Chemical Agent Disposal Facility (TOCDF) in Stockton, Utah, to modify Condition #2 of the alternative monitoring request approved by EPA on June 29, 2009? The condition states among other things, that during the Non-Baseline Processing Phase, the sampling period for the Appendix K System sorbent tube trap sets shall be no greater than 12 hours, and Tooele requests to change “no greater than 12 hours” to “no greater than 12 hours (plus or minus 30 minutes to allow for unforeseen events)”?

A: EPA approves the revision to Condition #2 because TOCDF has confirmed that even though the start or stop time may vary by up to 30 minutes, TOCDF will sample continuously. For those periods where the start or stop time varies by 15 minutes or more, TOCDF will provide a reason code in its reporting to explain why sampling was plus or minus 15 minutes or more. In addition, EPA believes the change in Condition #2 is approvable for the reasons expressed in its June 29, 2009 letter.

Abstract for [M100018]

Q1: Does EPA approve Albemarle Corporation's (Albemarle) alternative monitoring request for its facility in Orangeburg, South Carolina, to measure the liquid temperature in the receiver of its process condensers as described in 40 CFR 63.2460(c)(2)(v) when conducting the process condenser demonstration required by 40 CFR 63.1257(d)(3)(iii)(B)?

A1: Yes. EPA agrees that measuring the liquid temperature of the condensed liquid in the receiver would be an acceptable alternative to measuring the exhaust gas temperature as required by 40 CFR 63.1257(d)(3)(iii)(B) because the temperature of the condensed liquid and the exhaust gas are in equilibrium.

Q2: Does EPA approve Albemarle's alternative recordkeeping request under 40 CFR part 63, subpart GGG, to maintain records of standard and non-standard batch production to allow the calculation of rolling annual emissions on a daily basis to comply with the daily rolling 365-day HAP emissions once per month as required by 40 CFR 63.1259(b)(4)?

A2: Yes. For purposes of compliance with the annual mass limits of 40 CFR 63.1254(a)(2) and (b)(2), Albemarle must calculate and record the daily rolling annual total emissions for the previous month by the fifth day of each month.

Q3: Does EPA approve Albemarle's request for a waiver of the performance test requirements of 40 CFR 63.11(b)(6)(i) for a flare used to control Hydrogen Cyanide (HCN) emissions from the HCN Pharmaceutical Manufacturing Process Unit (PMPU)?

A3: Yes. EPA approves a waiver of the requirement to conduct a performance test to demonstrate compliance with 40 CFR 63.11(b)(6)(i). This waiver is for the same flare being operated under the same conditions for which Albemarle submitted information in 2002 and 2003 to support its request for a waiver of the performance test requirements under 40 CFR 60.18(c)(3)(i). In addition, the regulatory language of 40 CFR 63.11(b)(6)(i) is identical to that of 40 CFR 60.18(c)(3)(i).

Q4: Does EPA approve Albemarle's setting alternate operating limits for a hydrochloric acid (HCl) bubbler control device to those required by 40 CFR 63.1258(b)(1)(ii) for scrubbers?

A4: EPA conditionally approves the alternate operating parameters pending a successful performance test and other conditions listed in the EPA response letter.

Abstract for [1000021]

Q: Do the requirements for external floating roof tanks (EFR) in 40 CFR

60.112b(a)(2), the requirements for internal floating roof (IFR) tanks in 40 CFR 112b(a)(1) apply, or both, apply to EFR tanks which have been enclosed with a fixed roof located at the TransMontaigne Operating Company LP facility in Selma, North Carolina?

A: An EFR tank which is enclosed by the installation of a fixed roof meets the 40 CFR part 60, subpart Kb description of an IFR tank and is therefore subject to the requirements for IFR tanks. An enclosed EFR tank is no longer subject to the NSPS subpart Kb requirements for EFR tanks.

Abstract for [1000022]

Q1: Is a municipal solid waste landfill that already has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters required under 40 CFR part 60, subpart WWW, to submit an amended design capacity report upon approval of a further expansion?

A1: No. The facility is not required to do so as it is subject to the standards 40 CFR 60.752(b), which does not require such reports.

Q2: Is a municipal solid waste landfill that already has a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters required under 40 CFR part 60, subpart WWW, to submit a notice for a physical or operation change pursuant to 40 CFR 60.7(a)(4) upon approval of a further expansion?

A2: Yes. Under NSPS subpart WWW, the facility is required to do so for all modifications that meet the definition of 40 CFR 60.14.

Abstract for [A100001]

Q1: Does the removal of asbestos containing coating materials from stator bars at a metal recycling facility in Ashtabula, Ohio, constitute an asbestos conversion process subject to 40 CFR 61.155?

A1: No. 40 CFR 61.155 applies to situations where regulated asbestos containing material, and asbestos-containing waste material, is converted to a non-asbestos material. The information provided by the requestor indicates that stator bars coated with an asbestos containing resin and wrapped with tape covered by an asbestos containing tar will be removed from various locations and the bars will be taken to a recycling operation where the asbestos containing resin and tar will be removed from the bars. All of the asbestos that is removed from the stator bars will remain asbestos after it is removed from the bars. The asbestos material that is removed will be disposed of in a landfill. Because the

asbestos containing material is not subject to any process or treatment that would convert it to a nonasbestos material, there is no conversion to a non asbestos material taking place.

Q2: Are the notification requirements at 40 CFR 61.145 applicable to the removal of asbestos covered and coated stator bars at the site where they are removed and at the site where the asbestos is stripped from the bars?

A2: At each site where the stator bars are removed, if the surface area (of the bars to be removed) covered with asbestos containing resin and tar equals or exceeds 160 square feet, then the notification requirements of 40 CFR 61.145 apply and a notice must be submitted to the Federal, State or local agency delegated to receive such notifications. Because the stator bars will be stripped of asbestos at a site in Ashtabula, Ohio, a copy of each notification for bars removed outside of Ohio should also be sent to the Ohio Environmental Protection Agency. No matter where the bars are removed, a notification must be in place for each batch of stator bars stripped of asbestos containing materials at the site in Ashtabula, Ohio.

Q3: Which sections of 40 CFR 61.145(c) apply at the site where the stator bars are removed?

A3: Because the stator bars are not going to be stripped of asbestos at the site where they are removed, and because the stator bars are going to be shipped to Ashtabula, Ohio, the bars must be handled in accordance with the requirements of 40 CFR 61.145(c)(5)(i) through (iii).

Abstract for [M100019]

Q: With respect to the operating limits for cold core machines utilizing capture and wet acid scrubbers to control triethylamine (TEA) emissions at the Indianapolis Casting facility in Indianapolis, Indiana: When dampers are manually set in a fixed position, does the exemption from the continuous parameter monitoring system ("CPMS") requirement apply only to exempting a CPMS with regard to damper position or would a fixed damper position exempt the cold core machine capture system from monitoring the hourly average rate as with respect to 40 CFR 63.7740(a)?

A: 40 CFR 63.7710(b)(2)(i) contains two different requirements (at a minimum) for the capture system: level of ventilation draft and damper position settings. Both types of CPMS are required, but the CPMS for damper system is not needed if the damper position is manually set and in a fixed position. Thus, the CPMS exemption referred to in 40 CFR 63.7740(a)(2)

applies solely to the installation of a CPMS for damper position.

Abstract for [1000023]

Q: Does EPA approve a request for alternate performance testing under 40 CFR part 60, subpart KKKK, for combustion turbines and direct-fired heaters being installed as part of a process modification at the PL Propylene facility in Houston, Texas?

A: Yes. EPA has determined that the stationary combustion turbines are subject to the requirements of NSPS subpart KKKK, and has approved the request to conduct one performance test downstream of the selective catalytic reduction units, and to apply reference method results from the NOx continuous monitoring system certification for the initial demonstration of compliance with 40 CFR 60.4320. However, testing must be conducted using the fuel or combination of fuels that would result in the highest emissions.

Abstract for [1000024]

Q: Is the proposed Earth Energy oil sand mine and processing facility in eastern Utah, which will include mining of the naturally occurring oil sands and extraction of the bitumen from these sands, subject to 40 CFR part 60, subpart Ja?

A: No. The Earth Energy facility would not be considered a "petroleum refinery" and thus is not subject to NSPS subpart Ja.

Abstract for [M100020]

Q1: Does EPA approve the Tooele Army Depot's (TEAD's) request to establish a limit on the minimum baghouse inlet temperature to replace the requirement to establish a limit on the maximum baghouse temperature (40 CFR 63.1209(k)(1)(i)) to assure compliance with the dioxin and furan limit in 40 CFR 63.1219(a)(1)?

A1: EPA conditionally approves the use of a minimum baghouse inlet temperature rather than a maximum baghouse inlet temperature during the Comprehensive Performance Test if the baghouse inlet temperature is maintained at the required level, as established in the EPA response letter.

Q2: Does EPA approve TEAD's request to establish a limit on the maximum afterburner outlet temperature to replace the requirement to establish a limit on the maximum baghouse inlet temperature (40 CFR 63.1209(n)(1)) to ensure compliance with the semi-volatile and low volatility metals limits in 40 CFR 63.1219(a)(3) and (4)?

A2: No. EPA cannot approve the request because the temperature range of the inlet to the baghouse can vary so dramatically.

Q3: Does EPA approve TEAD's request to establish the maximum potential particulate matter (PM) generation as a limit to replace the requirement to establish the maximum ash feed rate limit to ensure compliance with 40 CFR 63.1219(a)(7)?

A3: Yes. EPA conditionally approves the request to establish the maximum potential particulate matter (PM) generation as a limit to replace the requirement to establish the maximum ash feed rate limit, provided that (i) The propellants, explosives and pyrotechnics (PEP) feed rate will not exceed 56.28 lb/hr and (ii) the PM generation will not exceed the worst case theoretical maximum based on the PEP feed rate above.

Abstract for [M100021]

Q1: Does EPA approve of the operator of a secondary aluminum continuous caster at the Commonwealth Aluminum Concast (Commonwealth) facility in Uhrichsville, Ohio, weighing the metal by measuring the volume of the slab produced by the continuous caster even if the method does not meet the one percent accuracy requirement at 40 CFR 63.1510(e)?

A1: Yes. Although these accuracies do not meet the one percent accuracy requirement at 40 CFR 63.1510(e), EPA has concluded that on the basis of the information provided the affected source should be able to meet the relevant emission standard.

Q2: May the operator record and report on a 24-hour basis the chlorine injection rate for its in-line fluxers since the chlorine meter is not accurate to one percent for the 15-minute block time period intervals specified in the rule at 40 CFR 63.1510(j)?

A2: No. In this instance, available data indicate that the required one percent accuracy can be achieved on a 16-hour basis. Therefore, EPA determines that there is no basis for extending the averaging period beyond 16 hours.

Q3: May the operator test only one of two identical in-line fluxers to measure particulate matter emissions?

A3: Yes. Because the in-line casters operate in series, the test plan does not contemplate testing of PM emissions from each fluxer individually. For the purposes of compliance calculations, however, the particulate matter is assumed to emit from the tested caster. This would represent a conservative worst-case assumption, and does not require the assumption that an equal

amount of particulate matter is emitted from each caster.

Q4: May the operator conduct performance testing for two of the four aluminum melting furnaces?

A4: Yes. EPA approves the testing of two of a total of four of the aluminum melting furnaces if these have the same physical dimensions and capacity, and the operator charges each furnace with the same materials and the same reactive fluxing agents in the same proportions, and this will maintain identical work practices. Also, Commonwealth will perform three test runs for two representative furnaces during a complete operating cycle, which is defined for purposes of this testing as the initial metal charging through the final skim, or about 1.5 hours. In addition, each melting furnace (M1 through M4) has the same physical dimensions and capacity of 233,000 tons, and maximum 21 million Btu/hour heat input natural gas burners. The testing of emissions from M1 will be representative of emissions from M3, and the testing of emissions from M2 will be representative of emissions from M4.

Abstract for [M100022]

Q1: Does EPA approve the revised comprehensive performance test plan (CPT) and continuous monitoring system (CMS) performance evaluation test (PET) plan for Sunoco Chemicals, in Haverhill, Ohio, pursuant to 40 CFR 63.1207(e)(1)(i)(A)?

A1: Yes. EPA approves Sunoco's revised CPT and CMS PET plan under MACT subpart EEE.

Q2: Does the requirement for a one-time dioxin/furan test apply to Boiler UC pursuant to 40 CFR 63.1207(b)(3)(ii) and 63.1207(b)(3)(iii)?

A2: EPA concludes that the requirement for a one-time dioxin/furan test for Boiler UC does not apply until Sunoco resumes generation and incineration of its two hazardous waste feedstreams.

Q3: Does EPA approve Sunoco's PM DIL requests for Boiler UC?

A3: Yes. EPA approves Sunoco's PN DIL requests for Boiler UC.

Q4: Does EPA approve Sunoco's request to use data from a 2006 DRE test on Boiler UC as documentation of conformance with the applicable DRE emission standard for Boiler UC pursuant to 40 CFR 63.1207(c)(2)?

A4: Yes. EPA approves Sunoco's request to use data from a 2006 DRE test on Boiler UC as documentation of conformance with the applicable DRE emission standard for Boiler UC.

Q5: Does EPA approve Sunoco's request to use data from a November

2001 DRE test on Boiler UE as documentation of conformance with the applicable DRE emission standard for Boiler UE pursuant to 40 CFR 63.1207(c)(2)?

A5: Yes. EPA approves Sunoco's request to use data from a November 2001 DRE test on Boiler UE as documentation of conformance with the applicable DRE emission standard for Boiler UE pursuant to 40 CFR 63.1207(c)(2).

Q6: Does EPA approve a maximum theoretical emission concentration request for Boiler UC and Boiler UE pursuant to 40 CFR 63.7(h) and 63.1207(m)?

A6: Yes. EPA approves a maximum theoretical emission concentration request for Boiler UC and Boiler UE pursuant to 40 CFR 63.7(h) and 63.1207(m).

Abstract for [1000025]

Q1: Are the flow monitoring procedures under 40 CFR part 60, subpart RRR, an acceptable alternative to the 40 CFR part 60, subpart NNN, requirements for the distillation operation at Flint Hills' facility in Saint Paul, Minnesota?

A1: Yes. EPA finds that in this instance the NSPS subpart RRR flow monitoring procedures are an acceptable alternative to those under NSPS subpart NNN. The NSPS subpart RRR requirement to monitor diversions from the control device accomplishes the same result (*i.e.*, providing a record of when vent streams are not controlled) as the NSPS subpart NNN requirement to monitor the flow to the control device.

Q2: Does EPA approve the use of certain monitoring, recordkeeping, and reporting provisions under 40 CFR part 60, subpart RRR, as alternative monitoring requirements to those under 40 CFR part 60, subpart NNN, for the Flint Hills' facility in Saint Paul, Minnesota?

A2: Yes. EPA approves the use of the provisions in NSPS subpart RRR as an alternative means of demonstrating compliance under NSPS subpart NNN for the specified distillation unit. As conditions of approval, the facility must comply with the recordkeeping and reporting requirements for flow indicators in NSPS subpart RRR and must maintain a schematic diagram for all related affected vent streams, collection system(s), fuel systems, control devices, and bypass systems as stated in 40 CFR 60.705(s).

Q3: Does EPA approve a waiver of initial performance tests for certain boilers and heaters at the Flint Hills' facility in Saint Paul, Minnesota?

A3: Yes. Pursuant to 40 CFR 60.8(b)(4), EPA conditionally approves the performance test waiver for the boilers and process heaters which are fired with fuel gas containing a vent stream from the Poly Unit De-Propanizer (43V-5), Saturates Gas De-Propanizer (43V-19), and Alky Unit De-Propanizer (35V-2). This waiver is applicable for boilers and process heaters that meet the definitions of a boiler or process heater in 40 CFR 60.701. Both the alternative monitoring and the waiver of performance testing are contingent upon the vent streams being vented to a fuel gas system and introduced into the flame zone with the primary fuel.

Q4: Does EPA approve Flint Hills' request for alternate flare reporting required by 40 CFR 60.665(l)(4), Subpart NNN?

A4: Yes. EPA approves Flint Hills Resources' (FHR's) request to comply with the reporting requirements on the status of the pilot flame in 40 CFR 63.654(g)(6)(i)(B) of Subpart RRR in lieu of the flare requirements in 40 CFR 60.665(l)(4) of Subpart NNN, based on approval of the AMP request.

Abstract for [M100023]

Q: What is considered a comparable new source under 40 CFR Part 63, Subpart P P P P P, when determining if reconstruction has occurred under 40 CFR 3.2 of the General Provisions at John Deere's engine testing facility in Dubuque, Iowa?

A: While the regulations do not define "comparable new source," it is clear within context of the paragraph (see 63.2, reconstruction definition) that the term stands for "a newly reconstructed existing facility." EPA has determined that the addition of the new test cells equipment to a facility, as defined in 40 CFR part 63, Subpart P P P P P, does not automatically trigger new source MACT requirements, unless the definition of reconstruction as listed in 40 CFR 63.2 is met. Based on the information provided, EPA has determined that for the John Deere Facility the cost of new equipment is not more than 50 percent of the cost to construct a comparable new facility. Therefore, the definition of reconstruction would not be met and new source MACT requirements were not triggered. The percent cost of installation should be calculated by dividing the cost of new components (*i.e.*, new test cell equipment) by the cost of a newly reconstructed existing facility (*i.e.*, cost of existing test cells and existing equipment) to determine if the cost criterion in the definition of reconstruction at 40 CFR 63.2 is met.

Abstract for [M100024]

Q1: How does the vacatur of the startup, shutdown, and malfunction (SSM) exemption provisions of 40 CFR part 63, subpart A, impact the reporting requirements of 40 CFR part 63, subpart RRR?

A1: In general, the SSM vacatur should have no impact on the reporting requirements in MACT subpart RRR.

Q2: If a monitoring malfunction occurs that does not cause excess emissions, is it a reportable occurrence?

A2: Yes, all malfunctions are required to be reported regardless of the resulting emissions.

Abstract for [1000026]

Q: Does EPA approve the request of the Enbridge Energy facility in Superior, Wisconsin, to perform an internal inspection under 40 CFR part 60, subpart Kb, on the internal floating roofs (IFR) tanks while they are in-service and out-of-service?

A: Yes. Enbridge Energy may perform an internal inspection by visually inspecting the IFR components from the top of the IFR using inspection procedures that are similar to those found in 40 CFR 63.1063(d)(1) and 40 CFR part 63, subpart WW. The proposed alternative monitoring procedure, based on 40 CFR part 63, subpart WW, would serve to satisfy the requirements of 40 CFR 60.113b(a)(4).

Abstract for [Z100001]

Q: Are sour water streams managed in sour water strippers regulated upstream of the sour water stripper exit under 40 CFR part 61, subpart FF?

A: Yes. Assuming that the total annual benzene quantity from facility waste is 10 Mg/year or greater, as provided by 40 CFR 61.342(b), the facility must comply with the requirements of 40 CFR 61.342 (c)-(h). Thus, these requirements would apply to sour water streams managed upstream of the sour water stripper exit.

Abstract for [M100025]

Q: Does EPA approve the request of Ross Incineration Services in Grafton, Ohio, for the hazardous waste incinerator operator to use alternate operating parameters in lieu of flow rate measurements for the scrubbers to avoid automatic waste feed cutoffs should a flow meter fail pursuant to 40 CFR part 63 subpart EEE?

A: Yes. EPA conditionally approves this request based upon the review of the data submitted showing that the alternate operating parameters, specifically, scrubber temperatures, water pump current, and nozzle pressure, can be measured and

maintained within a normal operating range, thereby assuring the performance of scrubber water pumps. The approval is contingent upon the ability of the facility to continuously maintain the scrubber flow rates for the radial-flow scrubber (RFS) and the gas-liquid contactor (GLC).

Abstract for [M100026]

Q: Does EPA approve the request of the Tooele Chemical Agent Disposal Facility (TOCDF) in Stockton, Utah, to modify conditions of the alternative monitoring request (AMR) approved by EPA on June 29, 2009, pursuant to 40 CFR part 63, subpart EEE, with regards to the use of a thermal desorption mercury analyzer and mercury sampling timeframes?

A: Yes, EPA approves revisions to applicable conditions of the June 26, 2009 AMR approval. All conditions of approval are restated in the current AMR approval.

Abstract for [M100027]

Q: Does EPA approve the request of the Tooele Chemical Agent Disposal Facility (TOCDF) in Stockton, Utah, to comply with the mercury emission standard (130 micrograms/dscm, corrected to 7 percent oxygen) at the Metal Parts Furnace (MPF) by: 1) continuously collecting exhaust gas samples and sampling for mercury (Hg) and taking the rolling average of the results obtained from three consecutive 4-hour sampling events, resulting in a 12-hour averaging period for compliance determination purposes, rather than relying on an operating parameter limit (OPL) for a maximum Hg feedrate as required by 40 CFR 63.1209(l)(1)(i); and (2) continuously sampling exhaust gas samples using a modified EPA method approved for use by coal-fired power plants found at 40 CFR Part 75, Appendix K rather than using Method 29 for Hg emissions, as required by 40 CFR 63.1208(b)(2)?

A: Yes. EPA conditionally approves the request provided that the facility meets all of the conditions set out in the EPA response letter.

Abstract for [M100028]

Q: Does EPA approve the request of the Tooele Chemical Agent Disposal Facility (TOCDF) in Stockton, Utah, to modify some of the Conditions of Approval contained in determination letters issued by EPA on April 27, 2006 and September 24, 2007 approving previously submitted alternative monitoring requests (AMRs) pertaining to the Manual Mercury (Hg) Emission Measurement method used during the Mustard Agent Processing in TOCDF's

Metal Parts Furnace (MPF), and to add the Manual Hg Emission Measurement method on the Liquid Incinerators (LICs)?

A: Yes. EPA conditionally approves the request, provided that the facility meets all of the conditions set out in the EPA response letter.

Abstract for [A110001]

Q1: If a city, county, municipality undertakes an "urban renewal" project that demolishes or renovates multiple single family homes, is it subject to the asbestos NESHAP regulation, NESHAP subpart M?

A1: It may be subject to the asbestos NESHAP. The city, county or municipality may be the owner or operator, depending upon the situation. As the owner or operator, the government entity must conduct a thorough inspection of each home that is identified to be demolished or renovated for the project. If the combined amount of friable asbestos or asbestos that will be made friable during the demolition or renovation operation exceeds the regulated threshold, then the demolition or renovation operation must comply with the air emission, the waste management, and the disposal requirement of the asbestos NESHAP.

Q2: Are single family homes not subject to the asbestos NESHAP based on the 1995 Clarification of Intent which described how isolated single family homes were exempt from the asbestos NESHAP?

A2: As stated in the question, the Clarification of Intent describes how to determine an isolated single family home. The "urban renewal" projects are not about isolated homes but a group of homes as part of a project that will be demolished or renovated over a period of time. In the preamble to the 1990 asbestos NESHAP amendments, EPA did not consider residential structures that are demolished as part of a commercial or public project to be exempt from this rule.

Q3: What is or please define "planning period?"

A3: Planning period is not defined in the asbestos NESHAP regulation. Planning period was identified in the 1995 Clarification of Intent to provide guidance when considering single family homes being demolished, and whether the home was considered a facility under the demolition operation. Demolition or renovation operations planned at the same time or as part of the same planning period or scheduling period are considered to be part of the same project, and that in the case of municipalities, a planning or scheduling period is often a fiscal or calendar year

or the term of a contract. The fact that demolitions might be spread out over multiple fiscal or calendar years or even multiple contracts, however, does not necessarily mean they are not occurring as part of the same planning period.

Dated: March 10, 2011.

David Hindin,

Acting Director, Office of Compliance.

[FR Doc. 2011-15416 Filed 6-20-11; 8:45 am]

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[FRL-9321-3]

Underground Injection Control Program; Hazardous Waste Injection Restrictions; Petition for Exemption—Class I Hazardous Waste Injection; ExxonMobil Environmental Services Company, Pasadena TX

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of a final decision on a no migration petition.

SUMMARY: Notice is hereby given that an exemption to the land disposal Restrictions, under the 1984 Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act, has been granted to ExxonMobil Environmental Services Company for two Class I injection wells located at Pasadena, Texas. The company has adequately demonstrated to the satisfaction of the Environmental Protection Agency by the petition and supporting documentation that, to a reasonable degree of certainty, there will be no migration of hazardous constituents from the injection zone for as long as the waste remains hazardous. This final decision allows the underground injection by ExxonMobil, of the specific restricted hazardous wastes identified in this exemption, into Class I hazardous waste injection wells No. WDW-397 and WDW-398 at the Agrifos Pasadena Texas Fertilizer facility, Pasadena, Texas, until December 31, 2020, unless EPA moves to terminate this exemption. Additional conditions included in this final decision may be reviewed by contacting the Region 6 Ground Water/UIC Section. A public notice was issued April 19, 2011. The public comment period closed on June 6, 2011. No comments were received. This decision constitutes final Agency action and there is no Administrative appeal. This decision may be reviewed/appealed in compliance with the Administrative Procedure Act.

APPENDIX L
Gasoline Distribution Industry (Stage I) –
Background Information for Proposed Standards

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United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-453/R-94-002a
January 1994

Air



Gasoline Distribution Industry (Stage I) - Background Information for Proposed Standards

NEESHAP

TABLE 3-1. VAPOR PROFILE OF NORMAL GASOLINE

HAZARDOUS AIR POLLUTANT ^a	HAP TO VOC RATIO (percentage by weight)		
	MINIMUM	ARITHMETIC AVERAGE	MAXIMUM
Hexane	0.3	1.6	4.4
Benzene	0.2	0.9	2.2
Toluene	0.4	1.3	4
2,2,4 Trimethylpentane (iso-octane)	0.03	0.8	2.6
Xylenes	0.05	0.5	1.5
Ethylbenzene	0.03	0.1	0.5
TOTAL HAPs^b	2	4.8	11

^a Cumene and naphthalene were also identified in some of the data points in small quantities. They are not shown as their addition does not significantly change the totals.

^b The total HAP ratios shown in the table are not simply sums of the individual HAP percentages listed in the columns; rather, total HAPs were calculated for each individual sample in the data base. The values represented in the table reflect the maximum, minimum, and arithmetic average total HAPs of these samples.

APPENDIX M

HRA Summary

San Joaquin Valley Air Pollution Control District

Risk Management Review

To: Wai-Man So – Permit Services
From: Will Worthley – Technical Services
Date: May 14, 2019
Facility Name: NUSTAR TERMINALS OPS PARTNERSHIP LP
Location: 2941 NAVY DRIVE, STOCKTON
Application #(s): N-829-1-10, -2-10, -16-8, -21-6, -28-7, -29-8
Project #: N-1181193

1. Summary

1.1 RMR

Units	Prioritization Score	Acute Hazard Index	Chronic Hazard Index	Maximum Individual Cancer Risk	T-BACT Required	Special Permit Requirements
1-10	0.00	0.00	0.00	7.58E-09	No	No
2-10	0.00	0.00	0.00	1.96E-09	No	No
16-8	0.00	0.00	0.00	7.33E-09	No	No
21-6	0.00	0.01	0.00	0.00E+00	No	No
28-7	0.00	0.01	0.00	0.00E+00	No	No
29-8	0.00	0.00	0.00	0.00E+00	No	No
Project Totals	>1	0.02	0.00	1.69E-08		
Facility Totals	>1	0.02	0.00	8.46E-06		

1.2 Proposed Permit Requirements

To ensure that human health risks will not exceed District allowable levels; the following shall be included as requirements for:

Unit #1-10, 2-10, 16-8, 21-6, 28-7, & 29-8

1. No special requirements.

2. Project Description

Technical Services received a revised request on May 7, 2019 to perform a Risk Management Review (RMR) for the following:

- Unit -1-10: MODIFICATION OF FOUR LANE TRUCK LOADING RACK (NORTH) CONSISTING OF 7 GASOLINE LOADING ARMS, 3 DIESEL/BIODIESEL LOADING ARMS, AND 1 BIODIESEL LOADING ARM, A BIODIESEL LOADING PUMP, AND A 2-STREAM BLEND SKID: INSTALL FOUR ETHANOL LOADING PUMPS, VALVES, FITTINGS, AND ASSOCIATED PIPELINES. THE FOUR ETHANOL LOADING PUMPS ARE SHARED WITH PERMIT UNITS N-829-1 AND N-829-2.

- Unit -2-10: MODIFICATION OF FOUR LANE TRUCK LOADING RACK (SOUTH) CONSISTING OF 4 GASOLINE LOADING ARMS, 4 DIESEL/BIODIESEL LOADING ARMS, A BIODIESEL LOADING PUMP, A 4-STREAM BLEND SKID, AND A BIODIESEL TRUCK OFF-LOADING PUMP: INSTALL FOUR ETHANOL LOADING PUMPS, VALVES, FITTINGS, AND ASSOCIATED PIPELINES. THE FOUR ETHANOL LOADING PUMPS ARE SHARED WITH PERMIT UNITS N-829-1 AND N-829-2.
- Unit -16-8: MODIFICATION OF 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED GASOLINE, STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL: SPECIFY THE TANK BE USED TO STORE GASOLINE; INSTALL FUGITIVE COMPONENTS; AND ESTABLISH AN ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 252,000,000 GALLONS
- MODIFICATION OF 1,386,000 GALLON INTERNAL FLOATING ROOF MECHANICALLY FASTENED DECK AND WELDED GASOLINE, STORAGE TANK (#3301) WITH A MECHANICAL SHOE PRIMARY SEAL AND A WIPER SECONDARY SEAL: SPECIFY THE TANK BE USED TO STORE GASOLINE; INSTALL FUGITIVE COMPONENTS; AND ESTABLISH AN ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 252,000,000 GALLONS
- Unit -28-7: MODIFICATION OF 3,360,000 GALLON WELDED DOMED EXTERNAL FLOATING ROOF STORAGE TANK (#80001) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: SPECIFY THE TANK BE USED TO STORE GASOLINE AND DENATURED ETHANOL; INSTALL FUGITIVE COMPONENTS FOR ETHANOL SERVICES
- Unit -29-8: MODIFICATION OF 3,360,000 GALLON WELDED EXTERNAL FLOATING ROOF STORAGE TANK (#80002) WITH A MECHANICAL SHOE PRIMARY SEAL, A WIPER SECONDARY SEAL AND A SLOTTED GUIDEPOLE: SPECIFY THE TANK BE USED TO STORE GASOLINE AND DENATURED ETHANOL; INSTALL FUGITIVE COMPONENTS FOR ETHANOL SERVICES; ESTABLISH A COMBINED ANNUAL ORGANIC LIQUID THROUGHPUT LIMIT OF 258,000,000 GALLONS; AND INSTALL A GEODESIC DOMED ROOF.

3. RMR Report

3.1 Analysis

The District performed an analysis pursuant to the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015) to determine the possible cancer and non-cancer health impact to the nearest resident or worksite. This policy requires that an assessment be performed on a unit by unit basis, project basis, and on a facility-wide basis. If a preliminary prioritization analysis demonstrates that:

- A unit's prioritization score is less than the District's significance threshold and;
- The project's prioritization score is less than the District's significance threshold and;
- The facility's total prioritization score is less than the District's significance threshold

Then, generally no further analysis is required.

The District's significant prioritization score threshold is defined as being equal to or greater than 1.0. If a preliminary analysis demonstrates that either the unit(s) or the project's or the

facility's total prioritization score is greater than the District threshold, a screening or a refined assessment is required

If a refined assessment is greater than one in a million but less than 20 in one million for carcinogenic impacts (Cancer Risk) and less than 1.0 for the Acute and Chronic hazard indices(Non-Carcinogenic) on a unit by unit basis, project basis and on a facility-wide basis the proposed application is considered less than significant. For unit's that exceed a cancer risk of 1 in one million, Toxic Best Available Control Technology (TBACT) must be implemented.

Toxic emissions for this project were calculated using the following methods:

- Toxic emissions for this gasoline dispensing operations were calculated using emission factors derived from the 1997 CAPCOA Air Toxics "Hot Spots" Program document, Gasoline Service Station Industrywide Risk Assessment Guidelines.

These emissions were input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy, risks from the proposed unit's toxic emissions were prioritized using the procedure in the 2016 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required.

The AERMOD model was used, with the parameters outlined below and meteorological data for 2013-2017 from Stockton (urban dispersion coefficient selected) to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Source Process Rates					
Unit ID	Process ID	Process Material	Process Units	Hourly Process Rate	Annual Process Rate
1	1	VOC	LB	0.0045	37
2	1	VOC	LB	0.0035	36
16	1	VOC	LB	0.0634	253
21	1	VOC	LB	0.3284	0
28	1	VOC	LB	0.1604	0
29	1	VOC	LB	0.00045	0

Circular Area Source Parameters				
Unit ID	Unit Description	Release Height (m)	Radius (m)	Area (m ²)
16	Unit 16	7.32	10.67	358
21	Unit 21	7.32	10.67	358
28	Unit 28	7.32	16.76	883
29	Unit 29	7.32	16.76	883

Volume Source Parameters					
Unit ID	Unit Description	Release Height (m)	Side Length (m)	Initial Lateral Dimension (m)	Initial Vertical Dimension (m)
1	Unit 1 Fug	3.66	6.50	1.51	1.86
2	Unit 2 Fug	3.66	6.50	1.51	1.86

4. Conclusion

4.1 RMR

The cumulative acute and chronic indices for this facility, including this project, are below 1.0; and the cumulative cancer risk for this facility, including this project, is less than 20 in a million. In addition, the cancer risk for each unit in this project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit requirements listed on page 1 of this report must be included for this proposed unit.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

5. Attachments

- A. Modeling request from the project engineer
- B. Additional information from the applicant/project engineer
- C. Prioritization score w/ toxic emissions summary
- D. Facility Summary

APPENDIX N

ERC Surplus Analysis

ERC Surplus Analysis

Facility Name: NuStar Terminals Ops Partnership, LP **Date:** November 16, 2020
Mailing Address: 2941 Navy Drive **Engineer:** James Harader
Stockton, CA 95206 **Lead Engineer:** Nick Peirce
Contact Person: Sheary Culp
Telephone: (210) 918-2139
ERC Certificate #: C-1440-1
ATC Project #: N-1181193

Proposal

NuStar is proposing the use the following Emission Reduction Certificate (ERC) certificates to meet the federal offset requirements of District project N-1181193.

Proposed ERC Certificates	
Certificate #	Criteria Pollutant
C-1440-1	VOC

This analysis establishes the surplus value of ERC certificate(s) as of the date of this analysis. The surplus value of each certificate evaluated in this analysis is summarized in the following tables:

Criteria Pollutant: VOC

Certificate C-1440-1				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Original Value	2,728	2,572	2,291	2,977
Surplus Value	2,728	2,572	2,291	2,977

ERC Certificate C-1440-1

I. ERC Background

Criteria Pollutant: VOC

ERC Certificate C-1440-1 was issued on 1/30/2018. The ERCs were generated from the shutdown of a graphics arts operation at facility C-521, consisting of 18 newspaper printing presses. The following table obtained from the original ERC Banking Application Review (Project C-1162737) summarizes the credits from the subject certificate:

Certificate C-1440-1				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Actual Emission Reductions	3,031	2,858	2,546	3,308
Air Quality Improvement Deduction	303	286	255	331
Current ERC Certificate Quantities	2,728	2,572	2,291	2,977

II. Applicable District Rules at Time of Original Banking of Certificate C-1440-1

District Rule 2301 Emission Reduction Credit Banking (8/15/19)

The application review for the original ERC banking project demonstrates that the ERC credit complied with District Rule 2301 requirements at the time it was issued.

District Rule 4607 Graphic Arts Operations (12/18/2008)

The application review for the original ERC banking project demonstrated that the four inks used by the printing presses had VOC contents that were below than the Rule 4607 limit of 1.88 lb-VOC/gallon limit for inks applied to porous substrates. Therefore, the emission reductions were surplus of the requirements of Rule 4607 at the time the ERC's were originally banked.

III. Applicable Federal Rules at the Time of Original Banking of Certificate C-1440-1

No applicable Federal Rules were identified in the application review for the original ERC banking action.

IV. Current New/Modified District Rules for Certificate C-1440-1

No new applicable rules were identified, and Rules 2301 and 4607 have not been modified since the time of original banking.

Therefore, the emission reductions continue to be surplus of District Rule requirements.

V. Current New/Modified Federal Rules for Certificate C-1440-1

Federal Rule 40 CFR 60 Subpart QQ *Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing* is not applicable since that rule does not apply to flexographic printing presses.

Federal Rule 40 CFR 63 Subpart KK *National Emission Standards for the Printing and Publication Industry* is potentially applicable since the requirements of that Subpart applies to wide-web flexographic printing presses at Area Sources of HAP emissions and was applicable at the time the emissions were originally banked. However, this rule limits HAP emissions from inks and a review of the MSDS sheets for the four inks used by the flexographic presses verified that these inks do not contain any HAPs.

Therefore, the emission reductions are surplus of the requirements of 40 CFR 63 Subpart KK.

VI. Surplus at Time of Use Adjustments to ERC Quantities for Certificate C-1440-1

The emissions continue to be surplus of all District and Federal Rules and Regulations.

Therefore, no adjustments to the ERC values are necessary.

VII. Surplus Value of ERC Certificate C-1440-1

The emissions continue to be Surplus of all District and Federal Rules and Regulations; therefore, no adjustments to the ERC values are necessary.

Certificate C-1440-1				
Pollutant	1 st Qtr. (lb/qtr)	2 nd Qtr. (lb/qtr)	3 rd Qtr. (lb/qtr)	4 th Qtr. (lb/qtr)
Original Value	2,728	2,572	2,291	2,977
Adjustments	0	0	0	0
Surplus Value	2,728	2,572	2,291	2,977