

Bay Area Air Quality Management District

375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-5000

Proposed

Permit Evaluation and Statement of Basis for Renewal of the

MAJOR FACILITY REVIEW PERMIT

for

**Valero Refining Company - California
Facility #B5574**

Facility Address:

3400 East Second Street
Benicia, CA 94510-1097

Mailing Address:

3400 East Second Street
Benicia, CA 94510-1097

Application Engineer: Thu Bui

Site Engineer: Thu Bui

Application: 27200

July 2018

TABLE OF CONTENTS

A.	Background	3
B.	Facility Description	4
C.	Permit Content.....	4
I.	Standard Conditions.....	4
II.	Equipment	5
III.	Generally Applicable Requirements	6
IV.	Source-Specific Applicable Requirements	7
V.	Schedule of Compliance	13
VI.	Permit Conditions	13
VII.	Applicable Limits and Compliance Monitoring Requirements	14
VIII.	Test Methods.....	15
IX.	Permit Shield:.....	15
X.	Revision History	15
XI.	Glossary	16
XII.	Index	16
D.	Alternate Operating Scenarios:	16
E.	Compliance Status:.....	16
F.	Differences between the Application and the Proposed Permit:	16
APPENDIX A ENGINEERING EVALUATIONS		
	NONE PROCESSED FOR B5574.....	17
APPENDIX B Alternative Monitoring Plans (AMPs)		18
APPENDIX C-1 40 CFR 60, NSPS Subparts J and Ja Refinery-Wide		
	Envent AMP (Region 9), VCU tank degassing alternative monitoring 4-11-13	19
APPENDIX C-2 40 CFR 60, NSPS Subparts J and Ja Refinery-Wide		
	GEM AMP (Region 9), VCU tank degassing alternative monitoring 4-11-13.....	25
APPENDIX C-3.....		29

Title V Statement of Basis

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit” (as defined by BAAQMD Regulation 2-6-218) more than 100 tons per year of a regulated air pollutant or more than 10 tons per year of a hazardous air pollutant or more than 25 tons per year of a combination of hazardous air pollutants.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all “applicable requirements” (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is B5574.

The District issued the initial Title V permit for the assets owned by Valero Logistic Operations on December 1, 2003 in the B2626 Title V permit for Valero Refining Company – California and in the A0901 Title V permit for the Valero Benicia Asphalt Plant. The District transferred the assets from facilities B2626 and A0901 to facility B5574 in 2004 via Application 7980 and issued a Title V permit for facility B5574 on October 4, 2006 via Application 8925 Effective April 1, 2007, the name of Valero Logistics Operations, L.P. was changed to NuStar Logistics, L.P.

2018 Renewal:

This application is for a permit renewal, ownership, and SIC code change. Although the current permit expired on December 19, 2015, it continues in force until the District takes final action on the permit renewal. This permit has been upgraded to include new standard language used in all Title V permits. The Title V permit revision associated with the 2018 renewal application updates regulations and incorporates changes made through New Source Review and Title V permit applications. The changes involved in this revision are reflected in the accompanying draft permit, and they are explained in this statement of basis for the Renewal. For ease of reference for reviewers at this draft permit

stage, all changes to the current permit being made through the renewal are shown in “strikeout/underline” format.

There are no recent Title V permit application changes to be incorporated into this Renewal application permit.

B. Facility Description

The business name of BAAQMD Facility B5574 was changed from “NuStar Logistics, L.P.” to “Valero Refining Company – California” and Donald C. Wilson, Vice President and General Manager was designated as the responsible official on the Title V Permit according to BAAQMD Application Number 28596. The revisions were incorporated into an administrative amendment to the Major Facility Review permit for B5574 on July 17, 2017.

Valero Refining Company – California owns 16 hydrocarbon liquid storage tanks that are integrated into the overall petroleum refinery and asphalt plant facilities at the Valero Benicia Refinery (B2626) and Valero Benicia Asphalt Plant (A0901).

General Description of a Special Warehousing and Storage Facility (SIC 4226).

The Valero Refining Company – California Special Warehousing and Storage Facility (SIC 4226) provides storage capacity for organic liquids and other liquids associated with petroleum refining. Storage tank emissions are controlled through the use of add on control and or fitting loss control. Fugitive emissions have been controlled through the use of inspection and maintenance frequencies.

The SIC code change from 2911 to 4226 does not change any applicable requirements for the sources at this facility. It will continue to be treated as part of the refinery and asphalt plant Title V permits as a contiguous and interdependent facility.

The BAAQMD address was changed to 375 Beale Street, Suite 600, San Francisco, CA 94105.

The BAAQMD phone number was changed to (415) 749-5000.

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions derive from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many

of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes in Section I

- The dates of adoption and approval of rules in Standard Condition I.A have been updated
- The BAAQMD address was changed to 375 Beale Street, Suite 600, San Francisco, CA 94105 in Standard Condition I.F and I.J
- Condition I.G – Updated EPA address and contact information
- Condition I.G – In basis, removed MOP Volume II, Part 3 Section 4.15 because it does not exist
- BAAQMD Regulation 1 - General Provisions and Definitions
- BAAQMD Regulation 2, Rule 1 - Permits, General Requirements
- BAAQMD Regulation 2, Rule 2 – Permits, New Source Review
- BAAQMD Regulation 2, Rule 4 - Permits, Emissions Banking
- BAAQMD Regulation 2, Rule 5 – New Source Review of Toxic Air Contaminants

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S24).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit of more than 2 tons per year of a “regulated air pollutant” (as defined in BAAQMD Rule 2-6-222) or 400 pounds per year of a “hazardous air pollutant” (as defined in BAAQMD Rule 2-6-210).

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in the abatement device table but will have an “S” number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or “A”) device. If the primary function of a device is a non-control function, the device is considered to be a source (or “S”).

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District's regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

In response to the BAAQMD October 20, 2015 request for additional information for review of this 2nd renewal of the Title V Permit, the addition of a new table to the Title V permit was considered. As requested by BAAQMD, the new table would be placed in Section II of the permit and would list all exempt sources that could potentially have emissions greater than the Potential to Emit (PTE) levels defined by Regulation 2-6-239.

Regulation 2-6-239 defines federally 'significant' sources as those which have a PTE greater than 2 tons per year of any regulated air pollutant, or more than 400 pounds per year of any hazardous air pollutant. As defined by 2-6-218, the PTE is the maximum capacity of a source to emit based on its physical and operation design. Air pollution control equipment and restrictions on hours of operation or the type or amount of material combusted, stored, or processes is treated as a part of its design if the limitation or the effect it would have on emissions is federally enforceable or legally and practicable enforceable by BAAQMD.

For Facility ID #B5574, exempt sources listed in Table IIB are exempt from BAAQMD permitting requirement but could potentially have emissions greater than the PTE levels defined by Regulation 2-6-239. Upon review of Table IIB, there are no sources with PTE greater than the Regulation 2-6-239 levels. Therefore, there are no federally significant sources that are not listed in the Title V permit and it was not necessary to add a new table to the Title V permit for federally 'significant' sources.

Changes in Section II

- Table IIC Abatement Devices
 - A-40, corrected description for abatement device
 - A-41, corrected description for abatement device

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a

Title V permit if they are considered “significant sources” as defined in BAAQMD Rule 2-6-239.

Changes in Section III:

The dates of adoption and approval of rules have been updated.

- BAAQMD · Regulation 1
- BAAQMD · Regulation 2 · Rule 1
- SIP · Regulation 2 · Rule 1
- BAAQMD · Regulation 2 · Rule 2
- SIP · Regulation 2 · Rule 2
- BAAQMD · Regulation 2 · Rule 4
- BAAQMD · Regulation 2 · Rule 5
- BAAQMD · Regulation 3
- BAAQMD · Regulation 5
- BAAQMD Regulation 8 · Rule 3
- 40 CFR Part 82, Subpart F

The following regulations were added:

- SIP Regulation 8, Rule 3

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are “federally enforceable” and a “Y” (yes) indication will appear in the “Federally Enforceable” column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the “Federally Enforceable” column will have a “Y” for “yes”. If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District or EPA websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

Complex Applicability Determinations

Applicability of 40 CFR 60, Subpart J to Tank Degassing

At Facility B5574, NSPS Subpart J applicability to tank degassing has been added to the Title V permit for general site-wide applicability. Vapor control for tank degassing is achieved by use of portable thermal oxidizers brought on-site by contractors to combust the vapors. The vapors produced by tank degassing are considered to be refinery fuel gas vent streams subject to the NSPS Subpart J H₂S emission limitations and monitoring requirements. Since the portable thermal oxidizers are used on a temporary basis at each facility, the installation of an H₂S continuous emission monitoring system (CEMS) as required under NSPS Subpart J is not economically feasible and technically impractical to implement. As discussed for NSPS Subpart Ja, based on these unique operating conditions, the contractors who own and operate the portable thermal oxidizers have requested and received approval of Alternative Monitoring Plans (AMPs). The approved AMPs (presented in Appendix B) allow for use of colorimetric tube testing or a portable H₂S meter to determine the concentration of H₂S of gases entering each portable thermal oxidizer (i.e., a ‘grab sample’) in lieu of installation and operation of a CEMS.

Applicability of 40 CFR 60, Subpart Ja to Tank Degassing

NSPS Subpart Ja applies to tank degassing and has been added to the Title V permit for general site-wide applicability. Vapor control for these projects is achieved by use of portable thermal oxidizers brought on-site by contractors to combust the vapors. The vapors produced by tank degassing are considered to be refinery fuel gas vent streams subject to the NSPS Subpart Ja H₂S emission limitations and monitoring requirements. Since the portable thermal oxidizers are used on a temporary basis at each facility, the installation of an H₂S continuous emission monitoring system (CEMS) as required under NSPS Subpart Ja is not economically feasible and technically impractical to implement. Based on these unique operating conditions, the contractors who own and operate the portable thermal oxidizers have requested and received approval of Alternative Monitoring Plans (AMPs). The approved AMPs (presented in Appendix B) allow for use of colorimetric tube testing or a portable H₂S meter to determine the concentration of H₂S of gases entering each portable thermal oxidizer (i.e., a ‘grab sample’) in lieu of installation and operation of a CEMS.

Applicability of 40 CFR 63, Subpart CC, Refinery MACT 1 Requirements

The Valero Benicia refinery owns and operates sources subject to the requirements of 40 CFR 63, Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries, known as Refinery MACT 1. The most recently amended version of 40 CFR 63, Subpart CC was published in the Federal Register on July 13, 2016. This updated version resulted in the following changes to regulatory requirements:

- The updates to Refinery MACT 1 remove the startup, shutdown, and malfunction (SSM) provisions for storage vessels.
- Updated descriptions of 63.642(e) and (k). Renumbered 63.647(c) to (d) in Table IV – A (General)
- Updated 63.640 (n) overlap for multiple NSPS Subpart Kb tanks
- Added 63.640(n)(8)(vii) guidepole requirements for multiple NSPS Subpart Kb tanks
- Added statement for applicability to 63.646/Subpart G until 63.660/Subpart WW compliance based on 63.640(h) compliance date for multiple tanks
- Added 63.655(i)(1)(vi) recordkeeping requirements and deleted 63.655(i)(1)(iv) for multiple Group 1 tanks
- Added 63.655(i)(1)(vi) recordkeeping requirements for multiple Group 2 tanks
- Renumbered 63.655(i)(5) to 63.655(i)(6) for multiple tanks

Changes to Section IV:

The dates of adoption and approval have been updated for these rules:

- BAAQMD Regulation 1
- 40 CFR Part 60, Subpart A.
- 40 CFR Part 61, Subpart A
- 40 CFR Part 61, Subpart FF
- 40 CFR Part 63, Subpart A
- 40 CFR Part 63, Subpart G
- 40 CFR Part 63, Subpart CC

Administrative changes made throughout Section IV

- 40 CFR 63, Subpart CC, updated regulatory applicability throughout Section IV and VII based on amendments on 10/28/2009 and 6/30/2010.

Table IV - General

- BAAQMD 8-5-501.4 removed does not apply on a site-wide basis
- 40 CFR Part 60 Subpart J, added applicability
- 40 CFR Part 60 Subpart Ja, added applicability
- 40 CFR 63.640(h)(4), added the specific citation that applies
- 40 CFR 63.642(e), revised description per regulation amendment
- 40 CFR 63.642(k), revised description per regulation amendment

- 40 CFR 63.647(c) renumbered to 40 CFR 63.647(d)
- 40 CFR 63.654, citations renumbered to 40 CFR 63.655
- 40 CFR 63.655(i)(5) renumbered to 40 CFR 63.655(i)(6)

Table IV – A

- BAAQMD 8-5-404 added, erroneously omitted
- BAAQMD 8-5-411.3 removed due to unnecessary detail
- BAAQMD 8-5-502 added, erroneously omitted
- BAAQMD 8-5-502.2 added, erroneously omitted
- BAAQMD 8-5-601 added, erroneously omitted
- BAAQMD 8-5-602, wording added for clarification
- BAAQMD 8-5-603 added, erroneously omitted
- BAAQMD 8-5-604, wording added for clarification
- BAAQMD 8-5-605.1 removed due to unnecessary detail
- SIP 8-5-502 added, erroneously omitted
- 40 CFR 63.640(n)(1) renumbered to 40 CFR 63.640(n)(2) and description revised to delete Group 2
- 40 CFR 63.640(n)(8)(vii) added, guidepole requirements for floating roof storage tanks

Table IV-B

- BAAQMD 8-5-404 added, erroneously omitted
- BAAQMD 8-5-411.3 removed due to unnecessary detail
- BAAQMD 8-5-502 added, erroneously omitted
- BAAQMD 8-5-502.2 added, erroneously omitted
- BAAQMD 8-5-601 added, erroneously omitted
- BAAQMD 8-5-602, wording added for clarification
- BAAQMD 8-5-603 added, erroneously omitted
- BAAQMD 8-5-604, wording added for clarification
- BAAQMD 8-5-605.1 removed due to unnecessary detail
- SIP 8-5-501 removed, redundant with BAAQMD version
- SIP 8-5-502 added, erroneously omitted
- 40 CFR 63 Subpart G and Subpart CC, added statement for applicability to 63.646/Subpart G until 63.660/Subpart WW compliance based on 63.640(h) compliance date
- 40 CFR 63 Subpart CC, 63.646, added statement on applicability until 63.640(h) compliance date
- 40 CFR 63.646(g) was added for completeness because it had been erroneously omitted.
- 40 CFR 63.655(e), added per 63.655(i)(1)(ii), which was added for completeness.
- 40 CFR 63.655(h)(2), comment added that BAAQMD waived inspection notification requirements per 63.655(h)(2)(ii).

- 40 CFR 63.655(h)(6), removed citation because it is past due and has been completed.
- 40 CFR 63.654 citations renumbered to 40 CFR 63.655.
- 40 CFR 63.655(i)(1)(iv) deleted, not applicable to Group 1 storage vessels.
- 40 CFR 63.655(i)(1)(v) added, recordkeeping requirements for Group 1 storage vessels.
- 40 CFR 63.655(i)(5) renumbered to 40 CFR 63.655(i)(6).
- 40 CFR 63.660, added applicability.

Table IV-C

- BAAQMD 8-5-404 added, erroneously omitted
- BAAQMD 8-5-411.3 removed due to unnecessary detail
- BAAQMD 8-5-502 added, erroneously omitted
- BAAQMD 8-5-502.2 added, erroneously omitted
- BAAQMD 8-5-601 added, erroneously omitted
- BAAQMD 8-5-602, wording added for clarification
- BAAQMD 8-5-603 added, erroneously omitted
- BAAQMD 8-5-604, wording added for clarification
- BAAQMD 8-5-605.1 removed due to unnecessary detail
- SIP 8-5-501 removed, redundant with BAAQMD version
- SIP 8-5-501.4 removed because there are no set points requirements for floating roof tanks
- SIP 8-5-502 added, erroneously omitted
- 40 CFR 63 Subpart G and Subpart CC, added statement for applicability to 63.646/Subpart G until 63.660/Subpart WW compliance based on 63.640(h) compliance date
- 40 CFR 63 Subpart CC, 63.646, added statement on applicability until 63.640(h) compliance date
- 40 CFR 63.646(g) was added for completeness because it had been erroneously omitted.
- 40 CFR 63.655(e), added per 63.655(i)(1)(ii), which was added for completeness.
- 40 CFR 63.655(f), added for completeness because it had been erroneously omitted.
- 40 CFR 63.655(h)(2), comment added that BAAQMD waived inspection notification requirements per 63.655(h)(2)(ii).
- 40 CFR 63.655(h)(6), removed citation because it is past due and has been completed.
- 40 CFR 63.655(i)(1)(iv) deleted, not applicable to Group 1 storage vessels
- 40 CFR 63.655(i)(1)(v) added, recordkeeping requirements for Group 1 storage vessels
- 40 CFR 63.660, added applicability

Table IV-D

- 40 CFR 63 Subpart CC, added statement for applicability to 63.646/Subpart G until 63.660/Subpart WW compliance based on 63.640(h) compliance date
- 40 CFR 63.654 citations renumbered to 40 CFR 63.655.
- 40 CFR 63.655(i)(1)(vi), added recordkeeping requirements for Group 2 tanks
- 40 CFR 63.655(i)(5) renumbered to 40 CFR 63.655(i)(6)

Table IV-E

- BAAQMD 8-5-404 added, erroneously omitted
- BAAQMD 8-5-411.3 removed due to unnecessary detail
- BAAQMD 8-5-502 added, erroneously omitted
- BAAQMD 8-5-502.2 added, erroneously omitted
- BAAQMD 8-5-601 added, erroneously omitted
- BAAQMD 8-5-602, wording added for clarification
- BAAQMD 8-5-603 added, erroneously omitted
- BAAQMD 8-5-604, wording added for clarification
- BAAQMD 8-5-605.1 removed due to unnecessary detail
- SIP 8-5-502 added, erroneously omitted
- 40 CFR 63 Subpart G and Subpart CC, added statement for applicability to 63.646/Subpart G until 63.660/Subpart WW compliance based on 63.640(h) compliance date
- 40 CFR 63 Subpart CC, 63.646, added statement on applicability until 63.640(h) compliance date
- 40 CFR 63.654 citations renumbered to 40 CFR 63.655.
- 40 CFR 63.655(h)(2), comment added that BAAQMD waived inspection notification requirements per 63.655(h)(2)(ii).
- 40 CFR 63.655(i)(1)(iv) deleted, not applicable to Group 1 storage vessels
- 40 CFR 63.655(i)(1)(v) added, recordkeeping requirements for Group 1 storage vessels
- 40 CFR 63.655(i)(5) renumbered to 40 CFR 63.655(i)(6)
- 40 CFR 63.660, added applicability

Table IV-G

- BAAQMD 8-5-404 added, erroneously omitted
- BAAQMD 8-5-411.3 removed due to unnecessary detail
- BAAQMD 8-5-502 added, erroneously omitted
- BAAQMD 8-5-502.2 added, erroneously omitted
- BAAQMD 8-5-601 added, erroneously omitted
- BAAQMD 8-5-602, wording added for clarification
- BAAQMD 8-5-603 added, erroneously omitted
- BAAQMD 8-5-604, wording added for clarification

- BAAQMD 8-5-605.1 removed due to unnecessary detail
- SIP 8-5-502 added, erroneously omitted

V. Schedule of Compliance

Pursuant to BAAQMD Regulation 2-6-426.1, Major Facility Review Certification Statements with a statement of compliance were signed by the responsible official for Facility B5574 certifying that the statement of compliance is true, accurate, and complete based on information and belief formed after reasonable inquiry. Consistent with Regulation 2-6-426.2, NuStar Logistics, L.P. submitted a Major Facility Review Certification Statement on 9/6/2016 and Valero submitted a Major Facility Review Certification Statement on 7/3/2018. Based on the Certification Statements, it has been certified that a Schedule of Non-Compliance is not necessary.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting requirements have been added to the permit.

There are no proposed changes to existing permit conditions in the proposed permit.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- **BACT:** This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.
- **Cumulative Increase:** This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- **Offsets:** This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.

- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- TRMP: This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District’s Toxic Risk Management Policy.

Changes to permit:

No changes have been made in this section.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has reviewed all monitoring and has determined the existing monitoring is adequate.

Changes to Section VII:

Table VII – General

- 40 CFR Subpart J 60.104a(1) was added
- 40 CFR Subpart Ja 60.102a(g)(1)(iii) was added.
- 40 CFR 63.654 citations renumbered to 40 CFR 63.655.

Table VII – A

- BAAQMD 8-5-328.1 applicability was added

Table VII – B

- BAAQMD 8-5-328.1 applicability was added
- 40 CFR Subpart WW applicability was added
- 40 CFR 63.660 applicability was added

Table VII – C

- BAAQMD 8-5-328.1 applicability was added
- 40 CFR Subpart WW applicability was added
- 40 CFR 63.660 applicability was added

Table VII – D

- 40 CFR Subpart WW applicability was added
- 40 CFR 63.655(i)(1)(vi) applicability was added

Table VII – E

- BAAQMD 8-5-328.1 applicability was added

- 40 CFR Subpart WW applicability was added
- 40 CFR 63.660 applicability was added

Table VII – F

- BAAQMD 8-5-328.1 applicability was added

Table VII – G

- BAAQMD 8-5-328.1 applicability was added

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not “applicable requirements” as defined by Regulation 2-6-202.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to Section VIII:

No changes have been made in this section.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA’s “White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program.” The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District’s program does not allow other types of streamlining in Title V permits.

No additional permit shields were requested.

X. Revision History**Changes to Section X:**

- The revision history was updated.

XI. Glossary

Changes to Section XI:

- The glossary was not updated.

XII. Index

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

Pursuant to BAAQMD Regulation 2-6-426.1, NuStar and Valero submitted Major Facility Review Certification Statements with a statement of compliance signed by the responsible official for Facility B5574 certifying that the statements of compliance are true, accurate, and complete based on information and belief formed after reasonable inquiry. Consistent with Regulation 2-6-426.2, NuStar submitted a Major Facility Review Certification Statement on 9/6/2016 and Valero submitted a Major Facility Review Certification Statement on 7/3/2018.

F. Differences between the Application and the Proposed Permit:

There are no differences between the application(s) and the proposed Renewal Title V permit.

APPENDIX A

ENGINEERING EVALUATIONS

NONE PROCESSED FOR B5574

APPENDIX B**Alternative Monitoring Plans (AMPs)**

List of AMPs:

Description	Source(s)	Request Submittal Date	EPA Approval Date	EPA Point of Contact	Title V Permit	Appendix Location
NSPS J/Ja Tank Degassing H2S CEMS (Envent)	Multiple	4/5/2013	4/11/2013	Joel Jones, Assistant Director, Air, Waste, and Toxics Branch Enforcement Division	Renewal, 2015	B-1
NSPS J/Ja Tank Degassing H2S CEMS (GEM)	Multiple	4/11/2013	4/11/2013	Joel Jones, Assistant Director, Air, Waste, and Toxics Branch Enforcement Division	Renewal, 2015	B-2
NSPS J/Ja Tank Degassing H2S CEMS (Global)	Multiple	1/28/2015 (for Region IX)	8/11/2014 (Region VI)	Joel Jones, Assistant Director, Air, Waste, and Toxics Branch Enforcement Division	Renewal, 2015	B-3

APPENDIX C-1

40 CFR 60, NSPS Subparts J and Ja Refinery-Wide

Envent AMP (Region 9),
VCU tank degassing alternative monitoring 4-11-13



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

APR 11 2013

Steve M. Sellinger
President and CEO
Envent Corporation
3220 East 29th Street
Long Beach, California 90806-2321

Re: Request for Approval of an Alternative Monitoring Plan for Tank Degassing and Vapor Control Projects at Petroleum Refineries

Dear Mr. Sellinger:

The United States Environmental Protection Agency, Region IX (EPA) has received your April 5, 2013, request (enclosed for reference) on behalf of Envent Corporation (Envent) for an alternative monitoring plan (AMP) with regard to the New Source Performance Standards for Petroleum Refineries, which are codified at 40 Code of Federal Regulations (CFR), Part 60, Subparts J and Ja (NSPS J and Ja). EPA hereby approves your request subject to the conditions and limitations described in this letter.

Among other things, NSPS J and Ja prohibit the owner or operator of a fuel gas combustion device from burning any gas generated at a petroleum refinery that contains hydrogen sulfide (H₂S) in excess of the following limits:

- (i) 230 milligrams per dry standard cubic meter (40 CFR § 60.104(a)(1)); and
- (ii) 162 parts per million by volume (ppmv) determined hourly on a 3-hour rolling average basis, and 60 ppmv determined daily on a 365-successive calendar day rolling average basis (40 CFR § 60.102a(g)(1)(ii)).

With regard to these H₂S limits, NSPS J and Ja require the owner or operator of a fuel gas combustion device (FGCD) to install, calibrate, maintain, and operate a continuous monitoring system (CMS) to monitor and record the concentration of H₂S in the fuel gases before being burned in the FGCD (40 CFR §§ 60.105(a)(4) and 60.107a(a)(2)).

According to your request, Envent performs vapor control and degassing services for tanks, vessels, and pipes at petroleum refineries by using thermal oxidizers. As you state in your request, Envent's thermal oxidizers combust vapors that may be considered refinery fuel gas. Thus, Envent's thermal oxidizers are FGCDs subject to NSPS J and Ja. The issue, according to your request, is that Envent's thermal oxidizers are mobile FGCDs that are used on temporary bases at petroleum refineries, which makes it infeasible and impractical to install H₂S CMS as required under NSPS J and Ja.

Printed on Recycled Paper

Envent Corporation
Request for AMP
Page 2

Given that Envent's mobile thermal oxidizers are not fixtures at petroleum refineries, but are transported to the refineries on temporary bases to perform discrete degassing of tanks, vessels, or pipes, EPA agrees that it is impractical to require monitoring of these thermal oxidizers using H₂S CMS as required under NSPS J and Ja. Therefore, in accordance with 40 CFR § 60.13(i) and after consideration of your written request, EPA approves as an alternative to the continuous monitoring requirements of 40 CFR §§ 60.105(a)(4) and 60.107a(a)(2), the following AMP:

1. Envent shall use either H₂S colorimetric tube testing or a portable H₂S meter to determine the concentration of H₂S in gases entering each Envent mobile thermal oxidizer unit (the "Grab Sample"). Each Grab Sample shall be taken at the inlet to each mobile thermal oxidizer unit.
2. For each discrete degassing event, Envent shall perform a Grab Sample within 30 minutes of startup of each mobile thermal oxidizer unit (the "Initial Grab Sample").
3. If the Initial Grab Sample indicates a H₂S concentration equal to or less than 162 ppmv, then the inlet gas stream is deemed to meet the H₂S limits of NSPS J and Ja and no further monitoring is required for that discrete degassing event.
4. If the Initial Grab Sample indicates a H₂S concentration more than 162 ppmv, then for that discrete degassing event, the inlet gas stream is deemed to have exceeded the 230 milligrams per dry standard cubic meter limit of 40 CFR § 60.104(a)(1) and the 162 ppmv limit of 40 CFR § 60.102a(g)(1)(ii). Alternatively, Envent may demonstrate compliance with the H₂S limits in 40 CFR §§ 60.104(a)(1) and 60.102a(g)(1)(ii) by averaging three Grab Samples: (i) the Initial Grab Sample; (ii) a Grab Sample taken between 61 and 120 minutes after startup of the mobile thermal oxidizer unit; and (iii) a Grab Sample taken between 121 and 180 minutes after startup of the mobile thermal oxidizer unit. Envent can use this alternative method of demonstrating compliance only if it has three valid Grab Samples taken with the specified time periods.
5. Envent shall record the results of each Grab Sample and keep the records of all Grab Samples for at least five years.
6. Within 5 business days after each discrete degassing event, Envent shall provide the owner or operator of the petroleum refinery where the discrete degassing event is performed with the results of each Grab Sample, as well as a list of all dates and times when any Grab Sample indicates a H₂S concentration more than 162 ppmv. The purpose of this reporting requirement is to provide the owner or operator of the petroleum refinery with the data necessary for inclusion in its excess emissions and monitoring systems performance report or summary report form under 40 CFR § 60.7(c).
7. This AMP is limited to the requirements to install an H₂S CMS under NSPS J and Ja, and does not change Envent's obligations to meet all other applicable NSPS requirements, including but not limited to (i) the requirement to maintain and operate (to the extent practicable) any affected facility (including associated air pollution control equipment) in a manner consistent with good air pollution control practice for minimizing emissions (40 CFR § 60.11(d)); and (ii) the prohibition against concealing an emission which would otherwise constitute a violation of an applicable standard, including the use of gaseous diluents to achieve compliance with a

Envent Corporation
Request for AMP
Page 3

standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere (40 CFR § 60.12).

Although this AMP is effective immediately, it shall automatically expire on the effective date of any change that EPA makes to NSPS J or Ja that directly addresses the requirement to monitor the H₂S concentration in the fuel gases burned in mobile FGCDs used to degassing tanks, vessels, or pipes at petroleum refineries.

If you have any questions regarding this determination, please contact Joseph Lapka, Acting Chief of EPA Region IX's Air Enforcement Section, at (415) 947-4226 or at lapka.joseph@epa.gov.

Sincerely,



Joel Jones

Assistant Director, Air, Waste, and Toxics Branch
Enforcement Division, EPA Region IX

11 April '13

Enclosure

cc:



April 5, 2013

Debrah Jordan
Director, Air Division
75 Hawthorne St
San Francisco, CA 94105
(Attn: Joseph Lapka – Air D-5)

**RE: Request for Alternative Monitoring Plan
40 CFR Parts 60.13 (i)
Standards of Performance for Petroleum Refineries**

Dear Ms. Jordan;

As discussed with your staff, Envent Corporation desires to obtain an Alternative Monitoring Plan (AMP) for the measurement of Hydrogen Sulfide (H₂S) in the vapor stream from tank degassing and vapor control projects in refineries. In some cases, these vapors may be considered "refinery fuel gas" and subject our thermal oxidizer/combustion units to the monitoring standards of NSPS Subpart J and Ja. Due to the nature of our temporary operations it is infeasible and impractical to perform the monitoring required by Subpart J and Ja. We are requesting your approval of the monitoring program detailed below.

In summary, we provide vapor control and degassing services for tanks, vessels, pipes and other vessels and systems using thermal oxidizers (aka thermal combustion units). In some cases, these vapors may be considered "refinery fuel gas". Due to our temporary and mobile nature of our operation, we are requesting an AMP that provides a feasible method for H₂S testing while still ensuring the limit is not exceeded. We propose that the AMP will limit the inlet vapor stream to the Envent Mobile Thermal Oxidizer units to 162 PPMV H₂S as determined using an H₂S Colorimetric Tube Testing or the RKI Eagle H₂S Meter. We propose that the operator measure and record the concentration of hydrogen sulfide (H₂S) at the inlet to the thermal oxidizer at

3220 East 29th Street, Long Beach, California 90806-2321

PHONE: 888.997.9465 • FAX: 562.997.9485 • www.enventcorporation.com • www.tankdegassing.com

MARTINEZ, CA • LONG BEACH, CA • DENVER, CO • HOUSTON, TX • NEWARK, NJ

*Envent Corporation
Request for AMP
April 5, 2013*

start up using colorimetric tubes or an RKI H2S Meter within 30 minutes of startup. If the inlet concentration of H2S is equal to or less than 150 ppmv, then the inlet gas stream is considered a low sulfur gas stream with H2S less than 162 PPMV and no additional testing is required.

In the event the H2S is above 150 PPMV, we will use an H2S scrubber unit or other means of controlling H2S in the fuel gas before it enters our combustion chamber. Once the scrubber or other means of address the H2S is instituted and the system started up again, another sample will be taken of the inlet to the thermal oxidizer within 30 minutes. If the inlet to the thermal oxidizer is less than 162 PPMV, the system will be considered in full compliance with NSPS Subpart J and no further testing will be required.

Please issue an AMP to allow our operation as described above.

If you have any questions, please don't hesitate to call me at (925) 787-5527.

Sincerely,



Steve M. Sellinger
President & CEO

Cc: Mr. Joseph Lapka
Air D-5
75 Hawthorne St
San Francisco, CA 94105

Ms. Brenda Shine
Office of Air Quality Planning & Standards
Sector Policies and Programs Division, Refining and Chemicals Group
Environmental Protection Agency
Research Park, NC 27711

3220 East 29th Street, Long Beach, California 90806-2321
PHONE: 888.997.9465 • FAX: 562.997.9485 • www.enventcorporation.com • www.tankdegassing.com

MARTINEZ, CA • LONG BEACH, CA • DENVER, CO • HOUSTON, TX • NEWARK, NJ

APPENDIX C-2

40 CFR 60, NSPS Subparts J and Ja
Refinery-Wide

GEM AMP (Region 9),
VCU tank degassing alternative monitoring 4-11-13



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

APR 11 2013

Chris Longo
Regulatory Compliance Manager
GEM Mobile Treatment Services
1196 East Willow Street
Signal Hill, California 90755

Re: Request for Approval of an Alternative Monitoring Plan for Tank Degassing and Vapor Control Projects at Petroleum Refineries

Dear Mr. Longo:

The United States Environmental Protection Agency, Region IX (EPA) has received your April 11, 2013, request (enclosed for reference) on behalf of GEM Mobile Treatment Services (GEM) for an alternative monitoring plan (AMP) with regard to the New Source Performance Standards for Petroleum Refineries, which are codified at 40 Code of Federal Regulations (CFR), Part 60, Subparts J and Ja (NSPS J and Ja). EPA hereby approves your request subject to the conditions and limitations described in this letter.

Among other things, NSPS J and Ja prohibit the owner or operator of a fuel gas combustion device from burning any gas generated at a petroleum refinery that contains hydrogen sulfide (H₂S) in excess of the following limits:

- (i) 230 milligrams per dry standard cubic meter (40 CFR § 60.104(a)(1)); and
- (ii) 162 parts per million by volume (ppmv) determined hourly on a 3-hour rolling average basis, and 60 ppmv determined daily on a 365-successive calendar day rolling average basis (40 CFR § 60.102a(g)(1)(ii)).

With regard to these H₂S limits, NSPS J and Ja require the owner or operator of a fuel gas combustion device (FGCD) to install, calibrate, maintain, and operate a continuous monitoring system (CMS) to monitor and record the concentration of H₂S in the fuel gases before being burned in the FGCD (40 CFR §§ 60.105(a)(4) and 60.107a(a)(2)).

According to your request, GEM performs vapor control and degassing services for tanks, vessels, and pipes at petroleum refineries by using combustion devices. These combustion devices are FGCDs subject to NSPS J and Ja. The issue, according to your request, is that GEM's combustion devices are mobile FGCDs that are used on temporary bases at petroleum refineries, which makes it infeasible and impractical to install H₂S CMS as required under NSPS J and Ja.

Printed on Recycled Paper

Given that GEM's combustion devices are not fixtures at petroleum refineries, but are transported to the refineries on temporary bases to perform discrete degassing of tanks, vessels, or pipes, EPA agrees that it is impractical to require monitoring of these thermal oxidizers using H₂S CMS as required under NSPS J and Ja. Therefore, in accordance with 40 CFR § 60.13(i) and after consideration of your written request, EPA approves as an alternative to the continuous monitoring requirements of 40 CFR §§ 60.105(a)(4) and 60.107a(a)(2), the following AMP:

1. GEM shall use either H₂S colorimetric tube testing or a portable H₂S meter to determine the concentration of H₂S in gases entering each GEM mobile combustion device (the "Grab Sample"). Each Grab Sample shall be taken at the inlet to each mobile combustion device.
2. For each discrete degassing event, GEM shall perform a Grab Sample within 30 minutes of startup of each mobile combustion device (the "Initial Grab Sample").
3. If the Initial Grab Sample indicates a H₂S concentration equal to or less than 162 ppmv, then the inlet gas stream is deemed to meet the H₂S limits of NSPS J and Ja and no further monitoring is required for that discrete degassing event.
4. If the Initial Grab Sample indicates a H₂S concentration more than 162 ppmv, then for that discrete degassing event, the inlet gas stream is deemed to have exceeded the 230 milligrams per dry standard cubic meter limit of 40 CFR § 60.104(a)(1) and the 162 ppmv limit of 40 CFR § 60.102a(g)(1)(ii). Alternatively, GEM may demonstrate compliance with the H₂S limits in 40 CFR §§ 60.104(a)(1) and 60.102a(g)(1)(ii) by averaging three Grab Samples: (i) the Initial Grab Sample; (ii) a Grab Sample taken between 61 and 120 minutes after startup of the mobile thermal oxidizer unit; and (iii) a Grab Sample taken between 121 and 180 minutes after startup of the mobile thermal oxidizer unit. GEM can use this alternative method of demonstrating compliance only if it has three valid Grab Samples taken with the specified time periods.
5. GEM shall record the results of each Grab Sample and keep the records of all Grab Samples for at least five years.
6. Within 5 business days after each discrete degassing event, GEM shall provide the owner or operator of the petroleum refinery where the discrete degassing event is performed with the results of each Grab Sample, as well as a list of all dates and times when any Grab Sample indicates a H₂S concentration more than 162 ppmv. The purpose of this reporting requirement is to provide the owner or operator of the petroleum refinery with the data necessary for inclusion in its excess emissions and monitoring systems performance report or summary report form under 40 CFR § 60.7(c).
7. This AMP is limited to the requirements to install an H₂S CMS under NSPS J and Ja, and does not change GEM's obligations to meet all other applicable NSPS requirements, including but not limited to (i) the requirement to maintain and operate (to the extent practicable) any affected facility (including associated air pollution control equipment) in a manner consistent with good air pollution control practice for minimizing emissions (40 CFR § 60.11(d)); and (ii) the prohibition against concealing an emission which would otherwise constitute a violation of an applicable standard, including the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere (40 CFR § 60.12).

Although this AMP is effective immediately, it shall automatically expire on the effective date of any change that EPA makes to NSPS J or Ja that directly addresses the requirement to monitor the H₂S concentration in the fuel gases burned in mobile FGCDs used to degassing tanks, vessels, or pipes at petroleum refineries.

If you have any questions regarding this determination, please contact Joseph Lapka, Acting Chief of EPA Region IX's Air Enforcement Section, at (415) 947-4226 or at lapka.joseph@epa.gov.

Sincerely,



Joel Jones
Assistant Director, Air, Waste, and Toxics Branch
Enforcement Division, EPA Region IX

11 April '13

Enclosure

cc:

APPENDIX C-3

40 CFR 60, NSPS Subparts J and Ja
Refinery-Wide

Global AMP Request (Region 9),
VCU tank degassing alternative monitoring request, 1-28-15



12600 North Featherwood
Suite #330 | Houston, TX 77034
Ph: +1.713.678.7400 | Fx: +1.713.672.3988
info@gvcontrol.com | www.gvcontrol.com

Ms. Kathleen H. Johnson
EPA – Director of Enforcement Region 9
75 Hawthorne Street
San Francisco, CA 94105

January 28, 2015

Re: Request for Alternative Monitoring Plan (AMP)
40 CFR Part 60.13(i)
Standards of Performance for Petroleum Refineries

Dear Ms. Johnson:

Global Vapor Control, Inc. (GVC) desires to obtain an Alternative Monitoring Plan (AMP) for the measurement of Hydrogen Sulfide (H₂S) in the vapor stream from tank degassing and vapor control projects in refineries. In some cases, these vapors may be considered "refinery fuel gas" and subject our thermal oxidizer units to the monitoring standards of NSPS Subpart J and Ja. Due to the temporary and mobile nature of our operations it is infeasible and impractical to perform the monitoring required by Subpart J and Ja. We are requesting your approval of the monitoring program detailed below.

Specifically, GVC provides vapor control and degassing services for tanks, pipelines and other vessels and systems using portable temporary thermal oxidizer units (TOUs). In some cases, these vapors may be considered "refinery fuel gas." Due to the temporary and mobile nature of our operation, we are requesting an AMP that provides a feasible method for H₂S testing while still ensuring the limit is not exceeded. We propose that the AMP will limit the inlet vapor stream to the GVC TOU to 162 PPMV H₂S as determined using an H₂S Colorimetric Tube Testing or a portable H₂S Meter to determine the concentration of H₂S gas entering each TriStar/GVC TOU. We propose that the operator measure and record the concentration of hydrogen sulfide (H₂S) at the inlet to the thermal oxidizer at startup using colorimetric tubes or a portable H₂S meter within 30 minutes of startup. If the inlet concentration of H₂S is equal to or less than 150 ppmv, then the inlet gas stream is considered a low sulfur gas stream with H₂S less than 162 PPMV and no additional testing is required.

A TriStar Global Energy Solutions Company
www.TriStarGES.com



12600 North Featherwood
Suite #330 | Houston, TX 77034
Ph: +1.713.678.7400 | Fx: +1.713.672.3988
info@gvcontrol.com | www.gvcontrol.com

In the event the H₂S is above 150 PPMV, we will use an H₂S scrubber unit or other means of controlling H₂S in the fuel gas before it enters our combustion chamber. Once the scrubber or other means of address the H₂S is instituted and the system started up again, another sample will be taken of the inlet to the thermal oxidizer within 30 minutes. If the inlet to the thermal oxidizer is less than 162 PPMV, the system will be considered in full compliance with NSPS Subpart J and no further testing will be required.

Attached please find our current AMP issued and followed for Region 6, we would hope to have a similar AMP issued for Region 9 as described.

If you have any questions, please don't hesitate to call me directly at (832) 775-1591.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. Carter", is written over a horizontal line.

Brian R. Carter
General Counsel



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

August 11, 2014

Brian Carter
Tristar Global Energy Solutions Company
dba Global Vapor Control
12500 North Featherwood, Suite #330
Houston, TX 77034

Re: Alternative Monitoring Plan (AMP) – Tank Degassing and Similar Vapor Control Projects at Various Petroleum Refineries in Region 6 Subject to New Source Performance Standards (NSPS) for Petroleum Refineries (Subpart J and Ja) – Hydrogen Sulfide (H₂S) Monitoring for Vapors Combusted in Portable Thermal Oxidizers Owned/Operated by Tristar Global dba Global Vapor Control (Tristar/GVC).

Dear Mr. Carter:

This letter is in response to your request dated February 11, 2014, pertaining to the use of portable temporary thermal oxidizer units (TOUs) for emissions control during tank degassing and similar vapor control projects at various petroleum refineries located in Region 6 that are subject to NSPS Subparts J or Ja. Upon review of information provided, the United States Environmental Protection Agency (EPA) conditionally approves your AMP for facilities located in Region 6, as explained below and further outlined in the Enclosure to our letter.

Specifically, Tristar/GVC performs degassing services for tanks, vessels, and pipes located at petroleum refineries. The use of portable TOUs to combust vapors that are refinery fuel gas streams result in the TOUs being considered fuel gas combustion devices subject to either NSPS Subpart J or Subpart Ja, depending on the particular refinery-specific operations. Therefore, although your AMP only references NSPS Subpart Ja, our evaluation covers provisions from both Subparts J and Ja. NSPS Subpart J and Ja prohibit the owner or operator of a fuel gas combustion device from burning vent gas generated at a petroleum refinery that contains H₂S in excess of the following limits:

- 1) 230 milligrams per dry standard cubic meter (mg/dscm), per 40 CFR § 60.104(a)(1);
- 2) 162 parts per million by volume (ppmv) determined hourly on a 3-hour rolling average basis and 60 ppmv determined daily on a 365-day successive calendar day rolling average basis, per 40 CFR § 60.102a (g)(1)(ii).

In addition, NSPS Subparts J and Ja require the owner or operator of a fuel gas combustion device to install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) to monitor and record the concentration of H₂S in the fuel gases before being burned in a combustion device, per 40 CFR §§ 60.105(a)(4) and 60.107a(a)(2), respectively. Since your portable TOUs are used on a temporary basis at each facility, you contend that installation of an H₂S CEMS would not be economically feasible and technically impractical to implement.

Based upon the information provided to date, EPA agrees that, for the specific portable and temporary combustion device use as described in your request, it is impractical to require monitoring via an H₂S CEMS as specified by NSPS Subparts J and Ja. Therefore, per 40 CFR § 60.13(i), EPA

Internet Address (URL) • <http://www.epa.gov>

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on Recycled Paper (Minimum 25% Postconsumer)

EPA Region 6 Conditional AMP Approval
Tristar/GVC - Portable Thermal Oxidizers, NSPS Subpart Ja

Page 2


conditionally approves Tristar/GVC's AMP. Our conditional approval is limited to the monitoring of H₂S for the operations described in your AMP request, and delineated in the Enclosure to this letter. Please note that our conditional approval does not alter Tristar/GVC's or a refinery's obligations to meet all other applicable NSPS requirements, including, but not limited to, the following NSPS General Provisions:

- 1) the requirement to maintain and operate affected facilities and associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions, per 40 CFR § 60.11(d); and,
- 2) the prohibition against concealing emissions which would otherwise constitute a violation of an applicable standard, including the use of gaseous diluents to achieve compliance with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere, per 40 CFR § 60.12.

In addition, if a refinery already has an approved AMP for control and monitoring of tank, vessel and piping degassing emissions, then the refinery's AMP shall remain in effect, in addition to non-over-lapping provisions of this conditional approval that are specific to Tristar/GVC's operation of the portable TOUs. If overlapping provisions need to be addressed, either Tristar/GVC or the refinery may submit a request for site-specific review and revision to a particular facility's approved AMP.

This conditional approval is based upon consultation with our Office of Air Quality Planning and Standards (OAQPS) and our Office of Enforcement and Compliance Assistance. The conditional approval shall automatically expire on the effective date of any change to NSPS Subparts J or Ja that directly affects the requirements to monitor H₂S concentrations in fuel gases burned in portable combustion devices. Furthermore, if Tristar/GVC's use of portable TOUs during degassing operations changes from the representations made in the request, this approval will become null and void. If a refinery's operations change such that the sulfur content of the off-gas vent streams increases beyond levels specified in the Enclosure to this letter, then the refinery must document the change(s) and furnish the data to Tristar/GVC, so that you may follow appropriate steps in either 40 CFR §§ 60.105(b)(3)(i)-(iii) or 60.107a(b)(3)(i)-(iii). Finally, EPA's conditional approval should be referenced and attached to Tristar/GVC's Texas Permit By Rule Registration #120116, dated May 21, 2014, three Louisiana air permits issued in May and June 2012, and any new source review permit in other EPA Region 6 states where degassing operations at refineries will occur, to ensure federal enforceability. If you have any questions about this condition approval, please feel free to contact Diana Lundelius of my staff at (214) 665-7468, or by e-mail at lundelius.diana@epa.gov.

Sincerely,



Steve Thompson,
Associate Director
Air/Toxics and Inspection
Coordination Branch

Enclosure

ENCLOSURE**Alternative Monitoring Plan (AMP) Evaluation
For Monitoring H₂S in Vapors Combusted in Portable Thermal Oxidizer Units
During Degassing Services For Tanks, Vessels, and Piping
at Petroleum Refineries Located in EPA Region 6**

Tristar/GVC requested approval of an alternative monitoring plan (AMP) on February 11, 2014, for monitoring hydrogen sulfide (H₂S) in vapors that are combusted in their portable thermal oxidizer units (TOUs). Tristar/GVC performs degassing services for tanks, vessels, and piping at petroleum refineries using portable and temporary TOUs as emission control devices. Since Tristar/GVC's portable TOUs combust vapors that may be considered refinery fuel gas, the TOUs are combustion devices subject to New Source Performance Standards (NSPS) for Petroleum Refineries, Title 40 Code of Federal Regulations (C.F.R.) Part 60, Subpart Ja. While the TOUs are subject to NSPS Ja, the incoming fuel gas streams from degassing at various refineries may be subject to either NSPS J or Ja. Since the TOUs are portable units that are used on a temporary basis, and are not permanent equipment owned or operated by the petroleum refineries, EPA agrees that it is not economically feasible and technically impractical to install H₂S CEMS, as required under either NSPS Subparts J or Ja.

Based on Tristar/GVC's representations of the degassing operations that will be covered by the AMP, the operation of the portable combustion devices, and other information furnished in the company's AMP request of February 11, 2014, and in email correspondence on May 21 and June 16, 2014, the following conditions are required as part of EPA's approval:

1. Each refinery where Tristar/GVC conducts degassing operations shall provide Tristar/GVC the following information:
 - (i) a list of the tanks, vessels and piping where degassing operations may occur;
 - (ii) a site plan diagram showing the locations and orientation of the tanks, vessels, and piping where degassing operations will occur, and the locations where Tristar/GVC may locate the portable thermal oxidizers and other equipment necessary for the degassing operations;
 - (iii) the names and titles of responsible refinery individuals who will review and approve degassing grab sample records and log sheets for the refinery;
 - (iv) a list of the materials stored in each tank, vessel, or piping area, and Material Safety Data Sheets (MSDS) for each material;
 - (v) a list of operating restrictions, if any, to ensure that degassing operations conform to special conditions in the refinery's air permits; and,
 - (vi) if applicable, a copy of the refinery's AMP for degassing operations that includes the use of portable control and combustion devices.
2. Tristar/GVC shall use either H₂S length of stain colorimetric tube testing or a portable H₂S meter to determine the concentration of H₂S in gases entering each Tristar/GVC portable TOU (i.e. a "grab sample"). Each grab sample shall be taken at the inlet of each mobile thermal oxidizer unit.

EPA Region 6 Conditional AMP Approval
Tristar/GVC - Portable Thermal Oxidizers, NSPS Subpart Ja

Page 4

3. For each discrete degassing event, Tristar/GVC shall collect a grab sample for H₂S within 30 minutes of startup of each portable TOU (the "initial grab sample").
4. If the initial grab sample indicates an H₂S concentration equal to or less than 162 ppmv, then the inlet gas stream is deemed to meet the H₂S limits of NSPS J and Ja, and no further monitoring is required for that discrete degassing event.
5. If the initial grab sample indicates a H₂S concentration more than 162 ppmv, then for that discrete degassing event, the inlet gas stream is deemed to have exceeded the 230 mg/dscm limit of 40 C.F.R. § 60.104(a)(1) and the 162 ppmv limit of 40 C.F.R. § 60.102a(g)(1)(ii). Alternatively, Tristar/GVC may demonstrate compliance with the H₂S limits in 40 C.F.R. §§ 60.104(a)(1) and 60.102a(g)(1)(ii) by averaging three grab samples:
 - (i) the initial grab sample;
 - (ii) a grab sample taken between 61 and 120 minutes after startup of the mobile thermal oxidizer unit; and,
 - (iii) a grab sample taken between 121 and 180 minutes after startup of the mobile thermal oxidizer unit.

Tristar/GVC can use this alternative method of demonstrating compliance only if three valid grab samples are taken within the specified time periods.
6. Tristar/GVC shall record the results of each grab sample, the key activities completed with each degassing operation, and other relevant information, on the forms furnished for approval to EPA Region 6. Tristar/GVC shall keep the records of all grab samples and degassing events for at least five years.
7. Within 5 business days after each discrete degassing event, Tristar/GVCs shall provide the owner or operator of the petroleum refinery where the discrete degassing event is performed the results of each grab sample, as well as a list of all dates and times when any grab sample indicated an H₂S concentration exceeded 162 ppmv. The purpose of this reporting requirement is to provide the owner or operator of the petroleum refinery with the data necessary for inclusion in excess emission reports and monitoring system performance reports required by 40 C.F.R. § 60.7(e).
8. Vapors from degassing operations shall be vented only to a TOU which is in full operation, and has been issued an air permit or other appropriate air emissions authorization by the State where the refinery is located.
9. Refineries must comply with the other applicable requirements of NSPS Subpart J or Ja that apply to the refinery fuel gas when Tristar/GVC conducts degassing operations. The use of Tristar/GVC's portable TOUs for control of H₂S and other refinery fuel gas vent stream pollutants at processes other than the degassing operations represented is not covered or authorized by this conditional AMP.

EPA Region 6 Conditional AMP Approval
Tristar/GVC - Portable Thermal Oxidizers, NSPS Subpart Ja

Page 5

10. Tristar/GVC shall follow its internal Standard Operating Procedures (SOP) for operation of the TOUs, as furnished with the AMP request. Tristar/GVC shall review and update the SOP at least once annually to ensure consistency with requirements of the AMP conditional approval, current permits/authorizations, and applicable federal/state air emission rules.