



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

July 9, 2021

Mr. Paul Anderson
Vapor Point LLC
1306 West F Street
La Porte, TX 77571

Dear Mr. Anderson:

This letter is in response to your letter, dated June 7, 2021, requesting an alternative monitoring procedure (AMP) and stack testing waiver for portable vapor combustion units (PVCUs) used by Vapor Point LLC (Vapor Point) on a temporary basis to control hydrogen sulfide (H₂S) emissions during degassing of tanks, vessels, and pipes at petroleum refineries in Region 4.¹ Your AMP covers refineries subject to Title 40, Code of Federal Regulations (CFR) Part 60, Subpart J (Standards of Performance for Petroleum Refineries) and Subpart Ja (Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007). Based upon our review, the United States Environmental Protection Agency (EPA) conditionally approves your AMP and grants a performance testing waiver for degassing activities that use temporary PVCUs at refineries located within Region 4 states, as explained in the remainder of this letter, and further delineated in the Enclosure to this letter.

Vapor Point performs degassing services for tanks, vessels, and pipes at petroleum refineries. The use of PVCUs to combust vapors that are refinery fuel gas vent streams results in the PVCUs being considered fuel gas combustion devices subject to either NSPS Subpart J or Subpart Ja, depending on the refinery-specific requirements. NSPS Subparts 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 H₂S per dry standard cubic meter (mg/dscm), per §60.104(a)(1).
2. 162 parts per million by volume (ppmv) H₂S determined hourly on a 3-hour rolling average basis, and 60 ppmv H₂S determined daily on a 365-day successive calendar day rolling average basis, per §60.102a(g)(1)(ii).

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 §§ 60.105(a)(4) and 60.107a(a)(2). Since your PVCUs are used on a temporary basis at each facility, you

¹ The AMP approval is limited to states within the EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee).

contend that installation of an H₂S CEMS would not be economically feasible and would be technically impractical to implement.

Based upon the information provided, the EPA agrees that, for the specific portable and temporary combustion devices used, as described in your request, it is impractical to require monitoring via an H₂S CEMS as specified by NSPS Subparts J and Ja. Therefore, in accordance with §60.13(i), the EPA conditionally approves Vapor Point's AMP. In addition, based on Vapor Point's proposed alternate testing protocols to be used during each degassing event, the EPA waives performance testing pursuant to §60.8(b)(4). Our conditional approval is limited to the monitoring of H₂S for the operations described in your AMP as delineated in the Enclosure to this letter, and does not alter Vapor Point's or a particular 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 §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 §60.12.

This conditional approval is based upon prior consultation with our Office of Air Quality Planning and Standards and our Office of Enforcement and Compliance Assurance and is consistent with similar approvals issued by our office. This conditional approval will 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. In addition, if Vapor Point's use of PVCUs during degassing operations changes from the representations made in the AMP request, this approval will become null and void. Furthermore, if an affected 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) so that Vapor Point may follow appropriate steps in either §§ 60.105(b)(3)(i)-(iii) or 60.107a(b)(3)(i)-(iii), based upon refinery-specific requirements.

If you have any questions about this conditional approval, please contact Tracy Watson of my staff at (404) 562-8998 or by email at watson.marion@epa.gov.

Sincerely,

**KENNETH
MITCHELL**

Digitally signed by
KENNETH MITCHELL
Date: 2021.07.09
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For Caroline Y. Freeman
Director
Air and Radiation Division

Enclosure

cc: Maria Malave, EPA OECA
Brenda Shine EPA OAQPS

ENCLOSURE

Alternative Monitoring Procedure and Performance Testing Waiver Evaluation for Hydrogen Sulfide in Vapors Combusted in Portable Vapor Combustion Units During Degassing of Tanks, Vessels, and Piping at Various Petroleum Refineries

Vapor Point LLC (Vapor Point) proposed an alternative monitoring plan (AMP) in a letter to U.S. EPA Region 4 dated June 7, 2021, for monitoring hydrogen sulfide (H₂S) in vapors that are combusted in portable vapor combustion units (PVCUs). Under the AMP, Vapor Point will perform degassing of tanks, vessels, and piping at various refineries located in Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee) using temporary PVCUs as emission control devices. Since Vapor Point's PVCUs will combust vapors that may be considered refinery fuel gas, the PVCUs are combustion devices subject to New Source Performance Standards (NSPS) for Petroleum Refineries, CFR Part 60, Subpart Ja. While the PVCUs 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 PVCUs are portable units that are used on a temporary basis, and are not permanent equipment owned or operated by the petroleum refineries, the EPA agrees that it is not economically feasible and is technically impractical to install H₂S CEMS as currently required under NSPS Subparts J or Ja. Additionally, in accordance with Vapor Point's alternate testing protocol, the EPA waives the requirement to conduct performance testing for each degassing event, consistent with §60.8(b)(4).

Based upon Vapor Point's representations of the degassing operations that will be covered by the AMP, the operation of the PVCUs, and other information furnished in the company's AMP request of June 7, 2021, the following conditions must be met as part of this AMP approval:

1. Each refinery where Vapor Point conducts degassing operations shall provide Vapor Point the following information:
 - (i) A list of the tanks, vessels and piping where degassing operations 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 Vapor Point may locate the PVCUs 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) or Safety Data Sheets (SDS) 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.
 - (vi) If applicable, a copy of the refinery's AMP for degassing operations that includes the use of portable control and combustion devices.

2. Vapor Point shall use length of stain tubes (e.g., Draeger) with a minimum detection limit of 200 ppmv H₂S to determine the concentration of H₂S in gases entering each Vapor Point PVCU (i.e., a "grab sample"), as described in additional information furnished by Vapor Point for its June 7, 2021, AMP petition. Each grab sample shall be taken at the inlet of the PVCU. If the concentration of the vent gas stream entering the PVCU is less than 100 ppmv H₂S, as measured by length of stain tubes, then Vapor Point's handheld portable H₂S monitor may be used to measure concentration in subsequent grab samples. If Vapor Point wishes to exercise the option

of using a handheld monitor in lieu of using stain tubes for initial grab samples, the H₂S sensor in the monitor must be capable of detecting a concentration up to 200 ppmv.

3. For each discrete degassing event, Vapor Point shall collect a grab sample (the "initial grab sample") for H₂S within 30 minutes of startup of each PVCU. No monitoring is required during operating periods when the PVCU does not combust gases generated by degassing and cleaning events.²
4. If the initial grab sample indicates an H₂S concentration less than or equal to 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 §60.104(a)(1) and the 162 ppmv limit of §60.102a(g)(1)(ii). Vapor Point has a scrubber which it may use to further reduce the H₂S concentration of such a vent gas stream. After implementation of scrubbing or other concentration reduction measures, Vapor Point will conduct additional testing to demonstrate compliance with the H₂S limits specified in §§ 60.104(a)(1) and 60.102a(g)(1)(ii), by collecting and averaging three valid grab samples as follows:³
 - (i) The initial grab sample;
 - (ii) a grab sample taken between 61 and 120 minutes after startup of the PVCU; and,
 - (iii) a grab sample taken between 121 and 180 minutes after startup of the PVCU.
6. Vapor Point shall record the results of each grab sample, the key activities completed with each degassing operation, and other relevant information, on the forms included in the AMP request . Vapor Point 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, Vapor Point 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 §60.7(c).
8. Vapors from degassing operations shall be vented only to a PVCU which is in full operation as described in the AMP petition.
9. Refineries must comply with the other applicable requirements of NSPS Subpart J or Ja that apply to the refinery fuel gas when Vapor Point conducts degassing operations. The use of Vapor Point's PVCUs 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.

² For example, sampling would not be required during time periods that commercially purchased propane is combusted for the purposes of heating up the PVCU to operating temperature prior to treatment of degassing and cleaning emissions, or during equipment cool down after the device is no longer needed to treat emissions from degassing and cleaning events.

³ Vapor Point can use this alternative averaging method of demonstrating compliance only if three valid grab samples are taken as specified and within the designated time periods.

10. Vapor Point shall follow its internal Standard Operating Procedures (SOP) for operation of the PVCUs, as furnished with the company's June 7, 2021, AMP petition. Vapor Point shall review and update the SOP at least once annually to ensure consistency with requirements of the AMP conditional approval, current air permits and authorizations, and applicable federal/state air emission rules. Vapor Point shall also update the list of PVCUs used for degassing operations annually to add or remove units as appropriate.