



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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April 13, 2021  
Ref: 8ENF-AT

**SENT VIA EMAIL**

Willie Lule  
USA DeBusk  
1005 W. Eight Street  
Deer Park, Texas 77536  
wlule@usadebusk.com

**Re: Application for an Alternative Monitoring Plan for H<sub>2</sub>S in Fuel Gas for NSPS Subpart Ja**

Dear Mr. Lule:

The EPA Region 8 is in receipt of USA DeBusk's (DeBusk) October 8, 2020 request for approval of an Alternative Monitoring Plan (AMP) pertaining to continuous monitoring requirements for hydrogen sulfide (H<sub>2</sub>S) for portable vapor combustor units (VCU) that are subject to 40 C.F.R. Part 60 Subpart Ja, Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 2007, (Subpart Ja). Similar requests were submitted to, and approved by, EPA Regions 4, 6 and 10. Based on the information provided in your request, the EPA is approving, with conditions, DeBusk's request for an AMP for monitoring H<sub>2</sub>S of fuel gas combusted in portable VCUs operated by DeBusk at petroleum refineries in EPA Region 8.<sup>1</sup> As mentioned below, this approval addresses certain Subpart Ja monitoring requirements and does not address other potentially applicable federal or state regulations or requirements.

DeBusk's AMP indicates that DeBusk uses the VCUs to provide odor control and combust volatile organic compounds (VOCs) and other pollutants generated during the tank de-inventory and sludge removal process and performs discrete degassing of tanks, vessels, and pipes. The VCUs are subject to Subpart Ja because: (1) the vapors combusted are considered "fuel gas," (2) the VCUs are considered "fuel gas combustion devices," and (3) the VCUs are affected facilities because they are located at petroleum refineries.<sup>2</sup>

Subpart Ja prohibits the owner or operator of a fuel gas combustion device from burning fuel gas that contains H<sub>2</sub>S in excess of the following limits:

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 C.F.R. § 60.102a(g)(1)(ii).

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<sup>1</sup> Specifically, in the States of Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

<sup>2</sup> "Fuel gas" and "Fuel gas combustion device" are defined in 40 C.F.R. § 60.101a. Subpart Ja affected facilities are identified in 40 C.F.R. § 60.100a.

Subpart Ja requires 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 H<sub>2</sub>S in the fuel gases before being burned in a combustion device, per 40 C.F.R. § 60.107a(a)(2). Since DeBusk's portable VCUs are used on a temporary basis at each petroleum refinery, DeBusk contends that installation of an H<sub>2</sub>S CEMS would be impractical and economically infeasible. The EPA agrees that the installation of CEMS on temporary fuel gas combustion devices is impractical. Pursuant to 40 C.F.R. § 60.13(i), EPA is approving DeBusk's request to monitor H<sub>2</sub>S using portable monitors.

Based upon DeBusk's representations of the degassing operations that will be covered by the AMP, the operation of the portable VCUs, and other information furnished in the October 8, 2020 AMP request, the EPA is approving DeBusk's AMP under limited circumstances and according to the following conditions:

1. Approval of this AMP is limited to monitoring H<sub>2</sub>S in fuel gas when combusting the vapors from tank<sup>3</sup> degassing operations in portable VCUs at refineries in EPA Region 8.<sup>1</sup>
2. If the petroleum refinery has an approved AMP in place for the control and monitoring of degassing operations, the petroleum refinery's approved AMP shall remain in place. This plan shall not supersede the petroleum refinery's plan.
3. Prior to performing the tank degassing activities at a petroleum refinery, DeBusk will obtain the information required by 3.a through 3.e. from each petroleum refinery. During the degassing event DeBusk will record the information required by 3.f through 3.h.
  - a. a list of the of tanks and identification numbers if applicable, where degassing operations will occur;
  - b. site plan diagrams showing the locations and orientation of the of tanks where degassing operations will occur, and the locations where DeBusk may locate portable VCUs, and other necessary equipment, for the degassing operations;
  - c. the names and titles of all refinery personnel and contractor individuals who will review and approve the degassing process and all H<sub>2</sub>S testing records for the petroleum refinery;
  - d. a list of the materials stored in each tank and Safety Data Sheets or Material Safety Data Sheets for each material, laboratory test results, or other similar information documenting the approximate H<sub>2</sub>S or total sulfur content of the materials;
  - e. a list of operating restrictions, if any, to help ensure that the degassing procedures comply with all previously approved special conditions in the refinery's air permits;
  - f. a copy of the testing steps used for sampling and monitoring during degassing events;
  - g. the Subpart Ja monitoring options for H<sub>2</sub>S under this AMP which were followed during each discrete degassing event; and
  - h. The results of each grab sample (including dates and time that each sample was taken); key activities completed with each degassing operation (including date and start and end time of each discrete degassing event), and other relevant information.

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<sup>3</sup>EPA Region 8 approving the AMP as it applies to the degassing of tanks. EPA Region 8 is not approving the AMP for the degassing of vessels and pipes.

4. DeBusk, and the petroleum refinery, shall maintain the information provided and required by Items 3(a)-(h), above, for a period of at least five years.
5. DeBusk will use either an H<sub>2</sub>S colorimetric tube or a portable H<sub>2</sub>S meter to determine the concentration of H<sub>2</sub>S in the gas entering each VCU (i.e., "grab sample"). Testing will be performed at the inlet of each portable VCU.
6. In the event that the measurement range of an H<sub>2</sub>S colorimetric tube or a portable H<sub>2</sub>S meter is exceeded, DeBusk shall re-sample with a different H<sub>2</sub>S colorimetric tube or portable H<sub>2</sub>S meter with the appropriate measurement range to ensure that an accurate measurement is obtained.
7. For each discrete degassing event, DeBusk shall collect a grab sample for H<sub>2</sub>S analysis within 30 minutes of commencing treatment of tank degassing vapors in each portable VCU utilized during a degassing (the "initial grab sample").
8. If the initial grab sample for a discrete degassing event indicates an H<sub>2</sub>S concentration equal to or less than 162 ppmv, then the inlet gas stream is deemed to meet the H<sub>2</sub>S limits of Subpart Ja, and no further monitoring is required for that discrete degassing event.
9. If the initial grab sample for a discrete degassing event indicates a H<sub>2</sub>S concentration more than 162 ppmv, then for that discrete degassing event, the inlet gas stream is deemed to have exceeded the 162 ppmv limit of 40 C.F.R. § 60.102a(g)(1)(ii) unless DeBusk can demonstrate that the average concentration of H<sub>2</sub>S collected from the following three grab samples do not exceed 162 ppmv:
  - a. the initial grab sample;
  - b. a second grab sample taken between 61 and 120 minutes after startup of the portable VCU; and,
  - c. a third grab sample taken between 121 and 180 minutes after startup of the portable VCU.

This alternative method of demonstrating compliance will only be used if there are three (3) valid tests performed within the specified time periods.

10. Vapors from degassing operations shall be vented only to a VCU which is in full operation mode.
11. Petroleum refineries must comply with the other applicable requirements of Subpart Ja that apply to the petroleum refinery fuel gas when DeBusk conducts degassing operations. The use of DeBusk's portable VCUs for control of H<sub>2</sub>S and other petroleum refinery fuel gas vent stream pollutants at processes other than the tank degassing operations represented is not covered or authorized by this AMP.
12. DeBusk shall follow its internal Standard Operating Procedures (SOP) for operation of the VCUs, as furnished with the company's October 8, 2020 AMP. DeBusk shall review and update the SOP at least once annually to ensure consistency with requirements of the approved AMP, current air permits and authorizations, and applicable federal/state air emission rules.
13. Petroleum refineries are responsible for including degassing emissions in excess emission reports

and monitoring system performance reports required by 40 C.F.R. § 60.7(c), as well as applicable Title V reporting.

This approval is based on the information provided in the DeBusk AMP request. This approval shall immediately become null and void if the information provided in the request changes or is not representative of actual operations at petroleum refineries in Region 8. In addition, this approval will automatically expire on the effective date of any change to Subpart Ja that directly affects the requirements to monitor H<sub>2</sub>S concentrations in fuel gases burned in fuel gas combustion devices.

Nothing in this approval relieves DeBusk or the owner or operator of a petroleum refinery of the obligations to comply with the requirements of Subpart Ja or any other applicable regulations, including, but not limited to the following:

- 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 C.F.R. § 60.11(d);
- 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 C.F.R. § 60.12;
- Applicable State Implementation Plan or permitting requirements; and
- The National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (Subpart CC). The combustion of pollutants in the VCU during the degassing of tanks may also be subject to Subpart CC. This approval does not address Subpart CC requirements.

The Office of Air Quality Planning and Standards and the Office of Enforcement and Compliance Assurance were consulted in drafting this response. If you have any questions about this approval, please contact Laurie Ostrand at (303) 312-6437 or by email at [Ostrand.Laurie@epa.gov](mailto:Ostrand.Laurie@epa.gov). If you have any questions regarding Subpart CC applicability, please contact Brenda Shine at (919) 541-3608 or by email at [Shine.Brenda@epa.gov](mailto:Shine.Brenda@epa.gov).

Sincerely,

**SCOTT PATEFIELD** Digitally signed by SCOTT PATEFIELD  
Date: 2021.04.13 07:00:32 -06'00'

Scott H. Patefield, Branch Chief  
Air and Toxics Enforcement Branch

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