



REGION 10
SEATTLE, WA 98101

April 4, 2024

Mr. Dylan Morrison
Environmental Program Manager II
Alaska Department of Environmental Conservation
410 Willoughby Avenue, Suite 303
Juneau, Alaska 99811-1800

Re: Applicability Determination for Alyeska Pipeline Service Company, Valdez Marine Terminal

Dear Mr. Morrison:

This letter is in response to your letter on behalf of the Alaska Department of Environmental Conservation (ADEC) to the U.S. Environmental Protection Agency (EPA), Region 10 dated August 3, 2023, requesting the EPA make a determination on whether the Alyeska Pipeline Service Company (Alyeska) Valdez Marine Terminal (VMT) tank vents, commonly referred to as “conservation vents,” are part of a closed vent system as described in 40 CFR Part 63, Subpart EEEE, *National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)* (NESHAP EEEE), and 40 CFR Part 63, Subpart SS, *National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process* (NESHAP SS).

Background

Alyeska owns and operates the Trans Alaska Pipeline System, which pumps oil across the State of Alaska from North Slope Borough to the VMT on Prince William Sound. VMT is a major source of air pollution and operates under a title V operating permit (AQ0082TVP02) issued by ADEC. VMT’s primary activities are conducted using eighteen 510,000-barrel, fixed roof low pressure (atmospheric) crude oil storage tanks and two active marine vessel-loading berths.¹ The storage tanks have a vapor recovery system that captures crude oil vapors. Excess captured vapors can be routed to balance vapor in the storage tanks, used in the facility’s power boilers as fuel gas, or sent to the facility’s thermal oxidizers for destruction. During times of tank maintenance or instances where the tank vapor controls cannot

¹ Alyeska’s title V operating permit covers eighteen crude oil storage tanks (Emission Units 29 – 46). In a letter dated October 20, 2023, Alyeska noted that only fourteen of the eighteen permitted crude oil storage tanks are in service at the VMT.

adjust in a timely way, the fixed roof tanks are designed to release through vent structures (referred to as conservation vents) to the atmosphere.²

On August 3, 2023, ADEC sent a letter requesting that the EPA, Region 10 determine whether the conservation vents on the tanks at the VMT are part of a closed vent system. ADEC stated that between March 5, 2022, and March 30, 2022, Alyeska submitted 12 Excess Emission Reports for VMT due to the dislodgement of various pallet vent structures (conservation vents) on crude oil tanks from snow load and movement. On the Excess Emission form, Alyeska listed Condition 18 of Permit No. AQ0082TVP02 as the “Permit Condition Exceeded/Limit/Potential Exceedance” related to the emissions event. Alyeska did not report the emissions events under the NESHAP EEEE or SS permit conditions, because those conditions address closed vent systems which, Alyeska stated, does not apply to the conservation vents on Alyeska’s crude oil storage tanks. ADEC’s letter further states that during an inspection on May 23, 2023, ADEC discovered a conservation vent leaking volatile organic compounds. ADEC maintains that the conservation vents are a component of a closed vent system and thus subject to NESHAPs EEEE and SS.

On October 30, 2023, Alyeska sent a letter to the EPA providing additional information to consider as part of this applicability determination. Alyeska stated that the Excess Emission forms referenced by ADEC were only used as a way to provide prompt, written notification to ADEC on the status of the sheared-off vent structures. Alyeska maintains that any emissions from the storage tanks during the event were not a violation of Condition 18 or Conditions 38-42 of the VMT title V permit. Alyeska maintains that the conservation vents (referred to in the letter as pressure vacuum valves, or PVVs) on the crude oil storage tanks are not part of the VMT’s closed vent system. Alyeska states that the conservation vents are directly connected to the crude oil storage tanks, not the closed vent system at the VMT. Additionally, Alyeska requested that the EPA affirm that the conservation vents are safety devices under 40 CFR 63.2406.

Analysis

NESHAP EEEE, 40 CFR 63.2406, defines a closed vent system as follows: “[A] system that is not open to the atmosphere and is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport gas or vapors from an emission point to a control device. This system does not include the vapor collection system that is part of some transport vehicles or the loading arm or hose that is used for vapor return. For transfer racks, the closed vent system begins at, and includes, the first block valve on the downstream side of the loading arm or hose used to convey displaced vapors.” See 40 CFR 63.981.

Additionally, NESHAP SS, 40 CFR 63.983(a)(1) states: “Collection of emissions. Each closed vent system shall be designed and operated to collect the regulated material vapors from the emission point, and to route the collected vapors to a control device.”

² In a letter from Alyeska to EPA, “Docket ID No. EPA-HQ-OAR-2018-0074: Comments on the Proposed Amendments to the Organic Liquids Distribution (Non-Gasoline) Rule (84 FR 56288),” December 5, 2019, Alyeska stated: “The original design and operation of the tanks along with the vapor collection system was intended to have this function in the event that the circumstances were such that the vapor controls could not adjust in a timely way, tank maintenance, vapor collection or unforeseen events.”

Based on the information provided to the EPA, there are no collection mechanisms that prevent emissions from being released to the atmosphere through the conservation vents. Neither the vapor recovery system nor any other system collects vapors released from the conservation vents. The gas and vapors released from the conservation vents are not transported to a control device. Alyeska has not designed a closed vent system at the VMT to capture vapors that are released to the atmosphere through the conservation vents. Accordingly, the conservation vents are bypasses of the closed vent system.

Determination

Based on the information provided by both ADEC and Alyeska, the EPA has determined that the Alyeska VMT crude oil storage tanks' conservation vents and associated vent piping and connections are not part of a closed vent system. Instead, these conservation vents are bypassing the closed vent system by allowing emissions to be released directly to the atmosphere.

Further, since Alyeska has not provided information to support the conclusion that these conservation vents are only operated during unplanned, accidental, or emergency events as required by the definition of safety device in 40 CFR 63.2406, the EPA cannot affirm that the conservation vents are safety devices.

If you have any questions about this matter, please contact Ms. Valerie Gardner of my staff at (907) 271-6561 or gardner.valerie@epa.gov.

Sincerely,

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Karl Pepple, Manager
Air Permits and Toxics Branch
Air and Radiation Division

cc: Mr. Brian Hirsch
Alaska Department of Environmental Conservation

Mr. Jim Plosay
Alaska Department of Environmental Conservation

Mr. Jan Shifflett
Alyeska Pipeline Service Co.