

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AIR QUALITY OPERATING PERMIT
RESPONSE TO COMMENTS**

Owner Name: Petro Star, Inc. (Petro Star)
Permit No.: AQ0311TVP03
Public Comment Closing Date: October 11, 2021
Source Name: Petro Star Valdez Refinery (PSVR)

The public comment period for the PSVR operating permit closed on October 11, 2021. Comments were received from Petro Star and appear exactly as submitted. This paper provides the Alaska Department of Environmental Conservation's (ADEC's) responses to the comments.

Section 3. State Requirements

Comment 1. Please clarify in Condition 2.8 that visible emissions observations only apply to non-emergency operations. PSVR proposes the following language for Condition 2.8:

a. *"Observe the exhaust during each calendar day that EU 16 ~~operates and~~ is scheduled to operate for ~~non-emergency, or maintenance or~~ and operational readiness testing."*

Rationale: This condition was established in the Construction Permit 311CP03 for monitoring of visible emissions and required visible emission observations of EU 16 at least once every 12 months. Since that time ADEC has revised its own Standard Permit Condition (SPC) IX for visible emission monitoring to allow for exceptions in emergency situations. PSVR requests to conduct smoke/no smoke or Method 9 readings each day the unit operates for non-emergency/maintenance purposes because the unit is a firewater pump that normally operates only during emergencies.

Response: *The initial requirement established in Construction Permit 311CP03 was to conduct visible emission readings on EU 16 no less than once every 12 months. In the application for Minor Permit AQ0311MSS04, Petro Star proposed specific language requiring smoke/no smoke readings each calendar day that EU 16 operates. A requirement similar to the proposed language was included in Minor Permit AQ0311MSS04.*

ADEC is unable to make the requested revision to Condition 2.8 because it would change the applicable Title I requirement established in Minor Permit AQ0311MSS04, issued September 29, 2014. Title V permits cannot change Title I requirements. However, the requested change is not necessary because the condition includes the word 'and' between 'operates' and 'is scheduled to operate' which therefore excludes emergency use.

Comment 2. Please revise Condition 18 to read

a. *"The Permittee shall ~~measure and record the gallons of fuel burned in EU IDs 1 and 3. install and maintain a flow meter in the fuel supply line to indicate, in gallons per hour, the amount of liquid fuel supplied to EU IDs 1 and 3 with an accuracy of + or - 5%."~~*

Rationale: In permit 311CP03 the original permit language provides for more flexibility while still meeting the state and federal requirements. For example, PSVR uses a fuel totalizer on EU ID 3 to

record the total volume of fuel consumed in a month. EPA addressed this very issue in the October 2016 Question and Answers document for the final rule changes for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial and Institutional Boilers at Area Sources codified in 40 CFR part 63, subpart JJJJJ (Area Source Boiler NESHAP).

Q53: If I have an oil-fired boiler, must I install a fuel meter to track my fuel usage?

A. No. EPA recognizes that not all facilities have fuel metering capabilities. Records of fuel delivery – instead of fuel consumption – will also meet the rule requirements. Affected sources have discretion on the periods of fuel records maintained on-site. The records may be annual, monthly, or periodic, depending on fuel delivery frequencies. Records documenting the type and amount of fuel used over the 12 months prior to a boiler tune-up must be kept if the boiler was physically and legally capable of using more than one type of fuel during that period. Records of fuel type and total fuel use by each affected boiler subject to an emission limit must be kept for each calendar month within the reporting period. Units sharing a fuel meter may estimate the fuel use by each unit.

[See 40 CFR § 63.11223(b)(6)(iii) and 63.11225(c)(2)(iv)]

Response: *ADEC is unable to make the requested revision to Condition 18 because it would change the applicable Title I requirement that was established in Minor Permit AQ0311MSS04. The rationale for the change is valid but the condition would have to be revised through a Title I permit.*

Comment 3. Please remove Condition 20.1.

a. ~~“Do not burn heavy atmospheric gas oil (HAGO) in EU IDs 1, 3, 4, and 16.”~~

Rationale: PSVR has removed all piping and associated equipment from the refinery process associated with HAGO production. PSVR does not have the capability to produce HAGO at the refinery without reconstructing the process pathways. To gain the ability to produce or store HAGO will require significant financial investment and permitting. Petro Star requests to remove condition 20.1 from the permit. In the future, Petro Star will evaluate through the permitting process should this option become financially advantageous.

Response: *ADEC made the revisions as requested for the reasons provided in the comment. ADEC also modified Table E accordingly. Modifying the stationary source to burn HAGO would be a physical change or change in the method of operation which would require a Title I permit applicability analysis.*

Comment 4. Condition 20.3(a)(i) and (ii) Please combine these two statements for simplification.

a. *“Measure and record the time and duration for which PSVR ~~does or does not~~ accept waste heat from the CVEA Cogeneration Project, and the quantity of each fuel burned in EU ID 1 in gallons of liquid fuels and scf of fuel gas. Calculate and record the monthly and 12-month rolling total fuel consumption for each type of fuel burned.”*

Rationale: The two conditions are requiring PSVR to measure and record the fuel consumption on EU ID 1 whether PSVR is receiving TEG or not.

Response: Draft permit Conditions 20.3(a)(i) and (a)(ii) are applicable Title I requirements that were established in Minor Permit AQ0311MSS04. However, ADEC agrees to revise the condition without changing the underlying applicable requirement. ADEC also added a footnote in accordance with 40 CFR 71.6(a)(1)(i) because the format was changed. The SOB was revised accordingly.

Comment 5. Please add a footnote to Condition 24.2 to define when startup begins for EU ID 1.

a. *“Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of EU IDs 1¹ and 18 – 21; the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.”*

¹ Startup for EU ID 1 is defined as the period when fuel gas is applied to the crude heater to bring the unit up to operating temperature.

Rationale: In order to prepare the crude heater for startup, PSVR starts by applying light-straight run (LSR) or Ultra-Low Sulfur kerosene (ULSK) to the burners to start heating the crude oil to begin the process of making fuel gas. Once the process reaches target pressure, fuel gas can be introduced into the burners to bring the crude heater up to a steady operating state. Before this time the only fuel that is being fired in the crude heater is liquid fuels that have a known fuel sulfur content (tested via ASTM D396) which is restricted to ≤0.75 Wt% Sulfur per the state standards. Therefore, the only time when PSVR may exceed the SO₂ standard is when they start operating on fuel gas.

Response: ADEC made the revision as requested for the reasons provided in the comment.

Section 4. Federal Requirements

Comment 6. Please revise Condition 45 and/or 46 to reflect the amendments EPA made to the regulations on January 19, 2021. Specifically, please include the Alternative Means of Compliance [§60.110b(e)] that allow for the options to comply with part 65 and part 63, subpart WW.

a. *“§ 60.110b Applicability and designation of affected facility.*

(e) Alternative means of compliance -

(1) Option to comply with part 65.

(5) Option to comply with part 63, subpart WW, of this chapter.”

Rationale: Earlier this year EPA recognized that, “Emptying and degassing events [so that an inspection can be conducted from inside the tank (required at least once every 10 years)] are undesirable primarily because owners or operators must take the storage vessel completely out-of-service; extra storage capacity is needed, and air emissions are created during these events.” The amendment to the regulation provides owners or operators with the flexibility to choose the appropriate standard. PSVR would like to have this flexibility should changes in operations dictate the need.

Response: ADEC made the revisions as requested for the reason provided in the comment.

Comment 7. After Condition 51.4, please include the Condition 53.5 from TVP02 – “If a dedicated batch process unit operates less than 365 days during the year...”

a. *“If a dedicated batch process unit operates less than 365 days during a year, the Permittee may monitor to detect leaks from pumps, valves, and open-ended valves or lines at the frequency specified in Table B, instead of monitoring as specified in Conditions 54, 58 and 40 C.F.R. 60.483-2a.*

a. *Pumps and valves that are shared among two or more batch process units that are subject to this subpart may be monitored at the frequencies specified in Table B, provided the operating time of all such process units is considered.*

b. *The monitoring frequencies specified in Table B are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. An owner or operator may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in Conditions 53.5.b(i) through 53.5.b(iv).*

(i) *When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days.*

(ii) *When monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days.*

(iii) *When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days.*

(iv) *When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days.*

[40 C.F.R. 60.482-1a(f)(1)-(3), Subpart VVa]”

Rationale: PSVR has reconsidered its position and would like to maintain operational flexibility for the changing market demands as demonstrated in the last two years due to the COVID-19 pandemic.

Response: ADEC removed Condition 53.5 of Operating Permit AQ0311TVP02 as requested in the application for Operating Permit AQ0311TVP03 but agrees to include the condition in the final operating permit for the reason provided in the comment.

Comment 8. Please revise Condition 62 and 62.3 to include EU ID 30.

a. *“For EU ID 29 and 30, process drains, and process sumps, the Permittee shall...”*

Rationale: EU ID 30 was newly added to this permit due to the construction of the wastewater treatment plant and is subject to NSPS Subpart QQQ.

Response: ADEC made the revisions as requested for the reason provided in the comment.

Statement of Basis

Comment 9. Please revise the fourth paragraph under the Stationary Source Identification to the following:

- a. *"Petro Star Inc. owns a bulk gasoline transfer ~~plant~~ terminal that is located approximately 5 miles from the Valdez refinery. The Permittee has ~~a pre-approved limit of 19,900 gallons of gasoline per day~~ an owner requested limit (AQ05050ORL01, issued on March 12, 2019) to operate the bulk ~~plant~~ terminal. The bulk ~~plant~~ terminal is not aggregated with the refinery because of the distance and the fact that the refinery does not produce gasoline and there is no interdependence between the two stationary sources.*

Rationale: Petro Star constructed a new 50,000 bbls gasoline storage tank at VPT in 2019 and applied for a new ORL to increase the gasoline throughput capability.

Response: ADEC made the revisions as requested for the reason provided in the comment.
