northwest Clean Air agency

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Title V Air Operating Permit

Renewal Application

Please provide the information requested in this application. Please submit to the Northwest Clean Air Agency three paper copies and one electronic copy of the completed application. The certification at the end of this document applies to the entire submittal. If additional room to reply is required, please attach pages to this request.

In some cases, a prior submittal to the NWCAA (e.g., the annual emissions inventory) may include information requested below. If you would like to refer the NWCAA to that information rather than provide the information here, please note this in your response. Any submittal to which the NWCAA is referred will become part of your renewal application. It is also acceptable to attach relevant portions of your current Air Operating Permit if the information therein provides an adequate response to a question below.

Part 1: General Information

1) Company name and address
HF Sinclair Puget Sound Refinery, LLC
8505 S. Texas Road
Anacortes, WA 98221

2) Current Air Operating Permit number and expiration date
014R2M1
September 14, 2026

3) Owner's name and agent
Same as above

4) Responsible Official name and address
Stephen Lang
Address same as above

5) Telephone number and name of plant site manager/contact
Environmental Manager – ***Aaron Vahid, (360) 293-0865***
Site Contact – ***Lester Keel, (360) 293-0800***

6) Were there any changes to the facility impacting air emissions since receiving the current Air Operating Permit (AOP)? [if yes, please describe changes]

YES, the following changes have occurred since the last update:

Emergency Firewater Pumps (33PGE2, 33PGE3, 33PGE14 & 33PGE15) were replaced January 2022. These model year 2020 engines have different specifications and rule applicability. The change did not trigger NSR permitting and NWCAA was consulted before these changes were made.

Part 2: Process and Emissions Information

7) Will there be any changes to the operating scenario(s) identified in the current AOP?

No

8) Provide a description of process and products by Standard Industrial Classification (SIC) Code. Please list the applicable SIC Code. Please repeat the list of processes and products for each alternative operating scenario.

The petroleum refinery SIC Code is 2911. Refer to the current AOP and Statement of Basis for a description.

9) Please list any and all pollutants that would cause the facility to be classified as a "major source" as defined in WAC 173-401.

Please refer to the 2024 annual emissions inventory.

10) Please identify and describe all points of emissions at the facility except those that qualify as insignificant emission units or activities as defined in WAC 173-401-530. Are these emissions units correctly identified and defined in the current AOP? If not, please note the requested changes below.

All emission points are identified in the current AOP except replacement Emergency Firewater Pumps 33PGE2, 33PGE3, 33PGE14 & 33PGE15 are new and should be added to the renewal AOP.

11) Please list and quantify all emissions of regulated air pollutants from the emission points identified in item 10 above. Please include calculations. If the most recent annual emissions inventory accurately describes these emissions, it is not necessary to repeat the same information here. Please refer the NWAPA to the most recent annual emissions inventory.

Please refer to the 2024 Annual Emissions Inventory.

12) List the fuels used and their respective usage rates at design capacity for the emission points identified in item 10 above.

Please refer to the 2024 Annual Emissions Inventory.

13) List the raw materials used and their respective usage rates at design capacity for the emission points identified in item 10 above.

Please refer to the 2024 Annual Emissions Inventory.

14) List the production rate at design capacity for the emission points identified in item 10 above.

Please refer to the 2024 Annual Emissions Inventory.

15) Identify the facility operating schedule (anticipated operating hours per day, days per week, weeks per year).

The refinery normally operates 24 hours per day, 7 per week, 52 weeks per year.

16) Please identify all air pollution control equipment at the facility. Is this air pollution control equipment correctly identified and defined in the current AOP? If not, please provide information necessary to correct.

Please refer to the 2024 Annual Emissions Inventory and the current AOP. Replacement Emergency Firewater Pumps 33PGE2, 33PGE3, 33PGE14 & 33PGE15 are new and should be added to the renewal AOP noting new horsepower rating (351 hp) and applicability of NSPS subpart IIII.

17) Please identify and describe all compliance monitoring devices or activities at the facility.

Compliance monitoring devices and activities have not changed since the last AOP issued.

18) Identify any limitations on source operation that affect emissions of a regulated pollutant. Similarly, list any work practice standards that affect emissions of a regulated pollutant at this facility.

There have been no changes since the last AOP issued.

Part 3: Applicable Requirements

19) Cite and describe all applicable requirements. An updated copy of the applicable requirements in the current AOP for the facility may be sufficient.

An edited current copy of the facility AOP is provided with tracking indicated for updates. A companion table is provided below that explains the basis for the changes.

20) Please list any applicable test method(s) for determining compliance with each applicable requirement listed in item 19 above. An updated copy of the current AOP for the facility may be sufficient.

There have been no changes since the last AOP issued.

21) Does the applicant propose any exemptions from an otherwise applicable requirement? If so, please explain.

No

22) Does the CAM rule (40 CFR part 64) apply to any of the emissions units?

YES. See Section 2.2.13 of the current AOP Statement of Basis. CAM is indicated to apply only to the FCCU regenerator vent respecting certain particulate emission limits. A CAM plan has been submitted for the FCCU and the terms are incorporated into the current AOP.

23) Does the accidental release prevention regulation (40 CFR part 68) apply to the facility?

Yes

24) Do the federal Acid Rain rules (40 CFR parts 72-78) apply to any of the emissions units?

No

25) Are there any requested changes to any condition in the current Air Operating Permit? [if yes, identify the condition, the requested change, and the reason]

Yes. An edited current copy of the facility AOP is provided with tracking indicated for changes requested. A companion table is provided below that explains the basis for the changes.

26) If the applicant would like to request that the permit shield be extended to cover certain requirements that the applicant believes are inapplicable, please list those requirements, below. Please include a brief narrative description of each requirement and the basis for the belief that each is inapplicable.

PSR requests the permit shield to be extended to the inapplicable requirements indicated in Section 7 of the current AOP.

Part 4: Compliance Status and Certification

27) Describe the compliance status of the facility with regard to all applicable requirements. Compliance status for each applicable requirement shall be described as "continuous" or "intermittent". Please include the method used for determining compliance. If an annual compliance certification has been recently submitted to the NWAPA, the applicant may

reference this report. However, if the applicable requirements or compliance status have changed since that submittal, an updated submittal is required.

Please see the Annual 2024 Compliance Certification Report for the most recent compliance status for PSR.

28) Provide the following:

a) For applicable requirements with which the source is in compliance, provide a statement that the source will continue to comply with such requirements;

For applicable requirements with which PSR is in compliance, PSR will continue to comply with such requirements.

b) For applicable requirements that become effective during the permit term, provide a statement that the source will meet such requirements on a timely basis;

For applicable requirements that become effective during the permit term, PSR will meet such requirements on a timely basis.

c) For applicable requirements with which the source is not in compliance at the time of permit issuance, provide a narrative description and provide a schedule of compliance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

There are no applicable requirements for which PSR is not currently in compliance.

d) For sources required to have a schedule of compliance to remedy a violation, provide a schedule for submission of certified progress reports every six months or at a more frequent period if specified in an applicable requirement.

Not applicable.

Statement of Certification: *Based on information and belief formed after reasonable inquiry, the statements and information in this document and any attachments are true, accurate and complete.*

Stephen Lang	**General Manager**
Name of designated responsible official	Title of responsible official
Signature of responsible official	9/4/2025 Date

Table of Requested AOP Changes (see application section 3, above); See also electronic copy of AOP provided with edits indicated

AOP Term	Summary of Requested Changes and Updates
Permit Information	Suggested edits and placeholders indicated at the Permit Information page
EU ID 1.1 Vacuum Pipe Still & 5.1.24	Edited to indicate QQQ IDS applicability only at the VPS Desalter sewer. QQQ applicability arose via the VPS upgrade project (OAC 1253). IDS work during this project pertained only to the desalter sewers; QQQ applicability does not extend to the entirety of the VPS sewer system.
EU ID 1.2 DCU & 5.2.12	Edited to indicate QQQ IDS applicability only at the DCU light ends section sewer. QQQ applicability arose via the DCU light ends recovery project (OAC 628). IDS work during this project pertained only to the DCU light ends section; QQQ applicability does not extend to the entirety of the DCU sewer system.
EU ID 1.3 FCCU & 5.3.8	PSR review of the permitting and modification record indicates that the NSPS 40 CFR 60 subpart J fuel gas combustion device H2S / SO2 standard has never been formally triggered at the CO Boilers (COBs). A fuel gas sulfur limitation for the COBs has, rather, been only a stipulation of control via NWCAA OACs. NWCAA OAC 361b appears to be the first appearance of a COB fuel gas sulfur limitation (TRS). The fuel gas sulfur limitation requirement has carried forward, and changed, through FCCU OAC revisions. Currently, OAC 623f stipulates a 162 ppm H2S limit and monitoring via 40 CFR 60 §60.105(a)(4). Term 5.3.8 has been edited to clarify the COB fuel gas sulfur limitation.
EU ID 1.3 FCCU & 5.3.28	Edited to remove QQQ applicability specification at the FCCU. PSR review indicates that QQQ has never been triggered at the FCCU- Noting discussions with NWCAA re. the drain project at the WGS was not an oily water sewer and recission of QQQ applicability in OAC 623a.
EU ID 1.7.2 HTU-2 & 5.7.20	Edited to indicate QQQ IDS applicability only at the HTU-2 ULSD project-affected sewer. QQQ applicability arose via the HTU-2 ULSD project (OAC 630a). IDS work during this project pertained only to certain sewers; QQQ applicability does not extend to the entirety of the HTU-2 sewer system.
EU ID 1.12 Engines & 5.12	Edited to remove references to MACT subpart PPPPP applicability to octane test engines. Octane test engines are categorically exempt from 40 CFR part 63 subpart PPPPP. Also- Noting that certain track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR. PSR is aligned with the addition and changes related to replacement of the BOHO emergency firewater pump engines.
EU ID 1.13.1 Effluent Plant & 5.13.4, 5.13.5, 5.13.6	Edited with deletion of QQQ applicability specification. 40 CFR part 60 subpart QQQ does not apply to DAFs. See QQQ BID 12/1987 page 2-7 and final rule preamble 11/23/1988 indicating no intent for QQQ to apply to DAFs or basins ahead of them. Also- Edited to indicate QQQ IDS applicability to the API Separator, Lift/Pump Station, and Surge Sump. QQQ applicability to the "aggregate facility" was, in all likelihood, triggered via preceding construction of new individual drain systems. The ETPPDF tables should be further amended as appropriate to indicate this applicability. The Lift Pumps and the Surge Sump fall under the Oil Water Separator definition of QQQ.
EU ID 1.14.1 & 1.14.3 Tanks	Diesel tank 504 and Gasoline tank 505; OAC1301- added construction date 2025 and noted initial fill notification already submitted. Also- added 40 CFR 60 Subpart QQQ applicability for IDS associated with Tk-503, 504, & 505.

AOP Term	Summary of Requested Changes and Updates
EU ID Multiple Process Areas and 1.9 Utilities & 5.1.17, 5.2.9 5.3.22, 5.4.2 5.5.11, 5.6.1 5.6.7, 5.7.4 5.7.16, 5.7.27 5.7.32, 5.7.37	Heat Exchange Systems- The current AOP individually indicates heat exchanger counts and MACT subpart CC applicability to heat exchangers at process area sections. This detailed listing of individual heat exchangers is misleading because MACT subpart CC does not apply to individual heat exchangers, it applies to *heat exchange systems*, which, in general terms for the closed loop systems at PSR, includes the collection of heat exchangers in HAP service plus the cooling tower and water lines servicing those heat exchangers. PSR recommends AOP specification of the MACT CC heat exchange system requirements similar to the approach used in the Marathon, P66, and BP AOPs. That is, providing detail in the cooling tower emission unit(s) in the Utilities emission unit category and associating to section 6.6 which contains the MACT CC heat exchange system requirements. The individual line items for heat exchangers at each of the process areas should be deleted.
4.18	Noting the track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR.
4.36	Site remediation MACT citation change- Suggesting a citation specification that can fit different situations. Concern with current wording is imposition of compliance obligations that appears to apply per the AOP but actually does not apply per subpart GGGGG criterion.
5.3.10	Edited citation 63.1564(a) to add (5)(ii) to provide for utilization of the minimum FCCU cyclone face velocity standard as an alternative provided by MACT subpart UUU. Also edited the term description and MRR accordingly. While the alternative standard is not available with respect to subpart J or within the CAM Plan, it is available pursuant to subpart UUU and should be included in the AOP term.
5.5.8	CRU regen depressuring MACT UUU- added text to note that depressuring / purging may also be routed to a fuel gas system. The option of using the fuel gas system (not just the flare) should also be added at the multiple miscellaneous process vent permit terms.
5.7.21	The MR&R indicating periodic source testing is not in logical alignment with the OAC fuel use limitations. Request deletion of the source testing component.
5.8	Noting that certain track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR. Notably- updating OAC828b (09/04/18) to OAC 828c (12/07/21). PSR is aligned with this change.

AOP Term	Summary of Requested Changes and Updates
5.8.7	Regarding edits indicated via track changes from the NWCAA AOP pre-draft provided to PSR covering specifications for SRU HAP & SO2 applicable requirements. Specifically, the NWCAA edited version includes subpart Ja requirements (citations) for operational standards under 40 CFR subpart Ja §60.103a(c), (d), and (e) and companion reporting under §60.108. This is an expansion of requirements beyond the current AOP that are not applicable and these new draft requirements should be deleted. The SRUs at PSR are subject to 40 CFR 60 subpart J, 40 CFR 63 subpart UUU, and OAC 828c. This ensemble of requirements provides for use of the dynamic limit for SO2 under §60.102a(f)(1)(i) for SRUs with oxygen injection. Explicitly, the SRUs are not subject to subpart Ja, but subpart J allows use of the dynamic limit under Ja §60.102a(f)(1)(i) to meet the subpart J emission standard and subpart UUU allows this as a matter of extension (UUU stipulates compliance with subpart J). The option for use of the Ja §60.102a(f)(1)(i) dynamic limit stems from subpart J §60.100(e) which indicates that *owners or operators may choose to comply with the applicable provisions of subpart Ja to satisfy the requirements of subpart J*. As indicated in the current AOP, the applicable provisions pertain to the Ja §60.102a(f)(1)(i) limit (and supporting elements such as oxygen flow rate measurement at §60.106a(a)(6)) being used to fulfill the subpart J §60.104(a)(2)(i) standard. Subpart Ja §60.103a(c), (d), and (e) and companion reporting under §60.108 are not applicable provisions corresponding to the subpart J SO2 emission standards for SRUs. Use of subpart J §60.100(e) by a subpart J-affected facility for utilization of the §60.102a(f)(1)(i) dynamic limit does not necessitate or mandate inclusion of these other subpart Ja elements. The marked up AOP submitted includes a suggested citation ensemble for term 5.8.7.
5.10.1	Noting that certain track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR.
multiple MACT subpart CC §63.655 citations	Updated the most recent promulgation date for MACT subpart CC §63.655. Changed 2/4/20 to 4/4/24.
multiple MACT subpart UUU §63.1574 citations	Updated the most recent promulgation date for MACT subpart UUU §63.1574. Changed 11/26/18 to 11/19/2020.
multiple MACT subpart R citations	Updated the most recent promulgation date for MACT subpart R citations. Changed to 05/08/24.
5.10.6 5.10.13 5.10.19 5.10.20	40 CFR 63 subpart CC at § 63.640(r) indicates that when both XX and CC apply, then the source is obligated to comply only with subpart CC. This overlap exists at the PSR loading rack and the facility is therefore not required to comply with subpart XX except as stipulated by subpart CC. The noted AOP terms include citations indicating applicability of 40 CFR 60 subpart XX §60.500 and §60.506. These sections do not apply pursuant to subpart CC and should be deleted.
5.10.2	Request separate line item for OAC 380c condition 3, which is included as MRR instead of as an applicable condition.
5.10.4	Noting the track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR. Also, there is no VE requirement in the 1994 SIP approved section 580.42, or in the current 06/14/2001 version of 580.42. Edited with deletion of VE verbiage.

AOP Term	Summary of Requested Changes and Updates
5.10.13	Edited with rephrasing of the MR&R verbiage to eliminate the old truck rack vapor combustor operating parameter threshold. Replaced with general verbiage so that changes in the parameter value does not cause confusion or create a potential permit modification burden. The current threshold parameter value is 289.1 deg. F. referencing PSR submittal dated 11/22/24.
5.12.1	Noting the track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR. PSR is aligned with the draft changes NWCAA made.
5.12.5	Noting the track changes indicated originated with NWCAA in the AOP pre-draft provided to PSR. PSR is aligned with the draft changes NWCAA made.
5.14.1 and 5.14.26	The initial fill notices for tanks 504 & 505 were submitted to the NWCAA. These AOP terms are moot.