Notice of Construction Technical Worksheet

NOC No. **1439**	Source: Puget Sound Refinery 8505 S Texas Rd Anacortes, WA 98221 NOC Contact: Mindy Mejia NWCAA No.: 1005
Permit Engineer: **Robyn Nabstedt**	
NOC Received: **4/1/26**	

A. Project Description

HF Sinclair Puget Sound Refinery (PSR) proposes to replace an existing 230 horsepower (hp) diesel-fired Caterpillar model S4 emergency generator engine at the #2 Control Room with a new, non-emergency Caterpillar model C18 ultra-low sulfur diesel (ULSD) fired standby engine generator rated at 500 kilowatt (kW), or 671 brake hp output.

The existing emergency generator engine was constructed in 1993 and intended for use at the #2 Control Room for short durations during power outages. As such, the emergency generator engine was not subject to the 40 CFR Part 60 Subpart IIII New Source Performance Standards (NSPS) for Stationary Compression Ignition Internal Combustion Engines because it was not constructed or modified after July 11, 2005, but it was subject to the 40 CFR Part 63 Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines as an existing stationary reciprocating internal combustion engine (RICE). NESHAP ZZZZ limits the use of emergency RICE for non-emergencies to 50 hours per year, and when maintenance and testing is conducted, a total of 100 hours per year.

On October 18, 2025, the existing emergency engine exceeded the 50-hour non-emergency use limit for calendar year 2025. The engine was removed from service on October 25, 2025.

The proposed new 500 kW generator engine is certified by the manufacturer to meet the EPA Tier IV Final (40 CFR Part 1039) nonroad compression-ignition engine emission standards and is equipped with an oxidation catalyst and diesel particulate filter (DPF). The proposed engine will not be permitted as an emergency-use engine and will be subject to the NSPS IIII standards as a new engine and the NESHAP ZZZZ standards as a new stationary RICE with a site rating of more than 500 bhp at a major source.

B. New Source Review (NSR) Fees

NWCAA New Source Review (NSR) fees have been assessed in accordance with the Northwest Clean Air Agency (NWCAA) fee schedule. The NSR fees assessed and amount paid are listed in the NSR Fee Worksheet kept in the electronic folder for this project.

C. Public Notice

In accordance with NWCAA Section 305.1, an internet notice that the NWCAA received this Notice of Construction (NOC) application was posted on the NWCAA website for a minimum of 15 consecutive days ending on April 17, 2026.

Formal public involvement and notification (i.e., comment period and/or hearing) is required for this project because the project review meets the criteria set forth in NWCAA 305.2: a public comment period has been requested by an individual during the period that the NOC was posted on the NWCAA website.

The 30-day public comment period was noticed on the NWCAA website on June 4th, 2026, and began on June 4th, 2026. Comments will be accepted until close of business on July 6th, 2026.

D. SEPA Review

State Environmental Policy Act (SEPA) review under NWCAA Section 155 is addressed as follows.

The NWCAA is the SEPA lead agency for this project. The applicant submitted a SEPA checklist that was signed on April 1, 2026. On April 29, 2026, the NWCAA issued a Determination of Non Significance (DNS) for this project. The SEPA DNS and the SEPA documents were uploaded to the Ecology SEPA portal on April 29, 2026. In addition, on June 2, 2026 the SEPA DNS and environmental checklist were sent to the following SEPA contacts: Kevin Cricchio, Skagit County Planner, and Don Measamer, City of Anacortes.

The SEPA checklist and DNS issued by the NWCAA are included in the NOC file.

E. Permit History

The existing emergency engine was not subject to permitting. This is the first permitting action for the new, non-emergency engine in the proposed application.

F. Basis for New Source Review Applicability

The following analysis is provided as a basis for reviewing the emission unit proposed under this project under Section 300 of the NWCAA Regulation. The potential to emit (PTE) is based on operation at maximum capacity and uncontrolled for 8,760 hours per year. Maximum capacity for the proposed new engine means 100% load (500 kW, or 671 hp) and the maximum fuel consumption rate as specified by the manufacturer while operating at 100% load (36.1 gal/hr of ultra-low sulfur diesel). Note that the PTE calculated by NWCAA differs (i.e., is higher) than the calculations provided in the application. NWCAA's calculations also include the criteria pollutants carbon monoxide (CO) and sulfur dioxide (SO_2), which were excluded from the criteria emissions calculations provided in the application.

The emission factors used to calculate emissions of particulate matter (PM), nitrogen oxides (NOx), volatile organic compounds (VOC), and CO listed in Table 1 below are based on the federal emission standards for engines with a power rating between 130 and 560 kW and

classified as compliant with Tier IV Final requirements. For engines such as the proposed engine with a model year post-2014, these standards are found in 40 CFR 1039.101(b) Table 1 as g/kW-hr and have been converted to lb/hp-hr in Table 1 of this worksheet for ease of comparison with NWCAA minor NSR thresholds. Engine performance for a Tier IV Final engine must be at least as stringent these emission standards, but this is a conservative method of estimating worst-case PTE from the proposed engine without taking into account any additional emission controls as proposed by the applicant to meet Best Available Control Technology (BACT) standards.

The emission factor used to calculate emissions of SO_2 in Table 1 below is solely based on fuel characteristics. It is calculated using the maximum amount of sulfur legally allowable in ULSD (15 ppm). The engine may only combust ULSD and this is an enforceable condition in both the applicable federal regulation and the permit. There are no additional sources of sulfur emissions from the engine.

No emissions of lead (Pb) or ozone (O_3) depleting substances as defined in NWCAA Section 200 and Appendices A and B to Subpart A of 40 CFR Part 82 are expected from the proposed engine.

For a detailed analysis of toxic air pollutant emissions (TAP) see Table 2.

Table 1: Emissions Analysis for NSR Applicability

Pollutant	Emission Factor (lb/hp-hr)	Emissions (lb/hour)	Emissions (ton/yr)	NWCAA 300.4 de minimis threshold (ton/yr)	Subject to NSR?
TSP[1,2]	3.3E-05	0.022	0.10	1.25	No
PM_{10}[1,2]	3.3E-05	0.022	0.10	0.75	No
$PM_{2.5}$[1,2]	3.3E-05	0.022	0.10	0.5	No
SO_2[3]	1.2E-05	8.1E-03	0.036	2.0	No
NOx[1]	6.6E-04	0.44	1.9	2.0	No
VOC[1,4]	3.1E-04	0.21	0.21	2.0	No
CO[1]	5.8E-03	3.9	17	5.0	Yes
Pb[5]	--	--	--	0.005	No
O_3 depleting substances[5]	--	--	--	1	No
TAP (-460)	See Table 2				

[1] EPA Tier IV Final standards for engines 130 < kW < 560 (40 CFR 1039.101(b), Table 1).
[2]Conservatively assume PM_{10} and $PM_{2.5}$ emissions are equivalent to TSP.
[3]EPA AP-42 Table 3.4-1 Gaseous Emission Factors for Large Stationary Diesel Engines, assuming sulfur content of 0.0015% in ULSD.
[4]Conservatively assume all non-methane hydrocarbon (NMHC) emitted are VOC.
[5]No emissions of lead or ozone depleting substances are expected in modern ULSD-fired engine exhaust.

Emissions of CO are subject to NSR, and therefore subject to BACT standards. No other uncontrolled potential criteria pollutant emissions are projected to exceed the NWCAA 300.4 de minimis threshold and therefore are not subject to permitting.

Table 2 below provides a detailed analysis of TAP for NSR applicability. Emissions of a TAP listed in Washington Administrative Code (WAC) 173-460-150 are subject to minor NSR if the PTE from the new engine is greater than the respective small quantity emission rate (SQER). Similarly to the criteria pollutant emissions calculations, the TAP emissions calculations below are more conservative estimates of PTE from the engine than were provided in the application. In the case of Table 2, however, this is because the applicant estimated only controlled TAP emissions.

Emission factors for TAP are based on speciation data from engine testing performed by EPA during development of the MOVES3 nonroad engine model, or for NO_2, SO_2, organic TAP, and Diesel Engine Exhaust Particulate (DEEP) on criteria emissions as estimated in Table 1. For factors from the MOVES3 speciation profiles, wherever possible emission factors for Tier IV certified engines with no additional controls were used to provide a conservative estimate of uncontrolled TAP emissions. Emissions estimates for NO_2, SO_2, and DEEP are also calculated without the benefit of additional controls.

Table 2: Detailed Toxic Air Pollutant Emissions Analysis for NSR Applicability

TAP	Emission Factor		Emissions (lb/avg period)	SQER		Subject to NSR?
	lb/hp-hr	lb/gal		avg period	lb/avg period	
1,3-Butadiene[1]	2.50E-07	--	1.5	year	5.4	No
Acetaldehyde[1]	3.25E-05	--	191	year	60	Yes
Acrolein[1]	5.85E-06	--	0.094	24-hr	0.026	Yes
Arsenic[2]	--	3.5E-08	0.011	year	0.049	No
Chromium VI[2]	--	1.7E-10	5.42E-05	year	6.50E-04	No
Benzene[1]	1.69E-05	--	99	year	21	Yes
Benz(a)anthracene[3]	2.44E-09	--	0.014	year	0.89	No
Chrysene[3]	2.40E-09	--	0.014	year	8.9	No
Diesel Engine Exhaust, Particulate[4]	3.29E-05	--	193	year	0.54	Yes
Ethyl Benzene[1]	1.37E-06	--	8.04	year	65	No
Formaldehyde[1]	9.13E-05	--	536	year	27	Yes
1,2,3,4,6,7,8-Heptachlorodibenzofuran[5]	--	4.0E-14	1.25E-08	year	4.30E-04	No
1,2,3,4,6,7,8-Heptachlorodibenzo-p-Dioxin[5]	--	4.2E-14	1.32E-08	year	4.30E-04	No
1,2,3,4,7,8,9-Heptachlorodibenzofuran[5]	--	2.3E-15	7.39E-10	year	4.30E-04	No
1,2,3,4,7,8-Hexachlorodibenzofuran[5]	--	8.8E-15	2.79E-09	year	4.30E-05	No
1,2,3,6,7,8-Hexachlorodibenzofuran[5]	--	9.7E-15	3.07E-09	year	4.30E-05	No
1,2,3,7,8,9-Hexachlorodibenzofuran[5]	--	7.2E-15	2.28E-09	year	4.30E-05	No
Manganese[2]	--	7.6E-08	6.61E-05	24-hr	2.20E-02	No
Mercury, elemental[2]	--	2.6E-10	2.29E-07	24-hr	2.20E-03	No
Naphthalene[3]	1.45E-06	--	8.5	year	4.8	Yes
Nickel[2]	--	1.3E-07	0.042	year	0.62	No
Nitrogen Dioxide[6]	6.58E-04	--	0.44	1-hr	0.87	No
Octachlorodibenzofuran[5]	--	6.9E-14	2.20E-08	year	1.50E-02	No
Octachlorodibenzo-p-dioxin[5]	--	2.8E-13	8.85E-08	year	1.50E-02	No
1,2,3,7,8-Pentachlorodibenzofuran[5]	--	4.3E-15	1.36E-09	year	1.50E-04	No
2,3,4,7,8-Pentachlorodibenzofuran[5]	--	1.3E-14	4.09E-09	year	1.50E-05	No
Xylenes[1]	7.05E-06	--	0.11	24-hr	220	No
Sulfur Dioxide[7]	1.21E-05	--	0.0081	1-hr	1.2	No
2,3,7,8-Tetrachlorodibenzofuran[5]	--	2.0E-15	6.44E-10	year	4.30E-05	No
Toluene[1]	1.18E-05	--	1.90E-01	24-hr	3.70E+02	No

[1]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-4 Toxic Fractions of VOC for Nonroad Diesel Vehicles by Engine Standard for Tier 4 engines with no DPF, multiplied by VOC emission rate from Table 1, EPA, July 2022
[2]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-6 Metal Emission Factors for Nonroad Diesel Engines, Tier 0-Tier 3 and Tier 4 with no DPF, converted from g/gal to lb/gal, EPA, July 2022
[3]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-5 PAH Emission Factors for Nonroad Diesel Engines, Tier 2, Tier 3, and Tier 4 no DPF, EPA, July 2022

[4]Conservatively assumed all particulate is DEEP
[5]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-7 Dioxin and Furan Emission Factors for Nonroad Diesel Engines, Diesel > 56kW Tiers 3 and 4, converted from g/gal to lb/gal, EPA, July 2022

[6]Assume all NOx is emitted as NO_2
[7]From EPA AP-42 Table 3.4-1 Gaseous Emission Factors for Large Stationary Diesel Engines, assuming sulfur content of 0.0015% in ULSD.

Emissions of acetaldehyde, acrolein, benzene, DEEP, formaldehyde, and naphthalene are subject to NSR. No other uncontrolled potential emissions of TAP are projected to exceed the respective SQER in WAC 173-460-150 and therefore are not subject to permitting. Note that because the applicant estimated only controlled TAP emissions, the application asserts that only emissions of DEEP are subject to NSR.

G. Criteria Air Pollutant Emissions and Impacts

Criteria pollutant emissions from the proposed project may not exceed, or cause to exceed, any ambient air quality standard for criteria air pollutants such as the National Ambient Air Quality Standards (NAAQS). At this step, NWCAA evaluates the effect of federally enforceable controls and limits, BACT limits, and proposed or as-permitted restrictions on the operation or use of the emission unit on the uncontrolled criteria pollutant emissions subject to NSR as presented in Table 1. NWCAA then compares the projected controlled criteria pollutant emissions against the NWCAA minor NSR modeling thresholds. The modeling thresholds are set at 50% of the Prevention of Significant Deterioration (PSD) Significant Emission Rate (SER) for major sources in attainment or unclassified areas found in 40 CFR 52.21(b)(23) and are intended to be protective of the NAAQS. If any projected controlled criteria pollutant emissions exceed the minor NSR modeling thresholds, air dispersion modeling must be conducted to further evaluate ambient impacts.

For criteria pollutants emitted from this project, only emissions of CO are subject to NSR. As described above, the proposed engine is Tier IV Final certified and includes oxidation catalyst and DPF. Emissions data from the manufacturer testing performed on this model of engine (including controls) was provided to NWCAA for analysis. However, in the specifications the manufacturer did not include any information about emissions of CO, nor did it include any potential reduction from the use of oxidation catalyst. Instead, NWCAA used the Tier IV Final CO emission standard to conservatively calculate CO emissions as permitted. As a Tier IV certified engine, the proposed engine must meet or exceed (i.e., emit less than) this performance standard.

PSR originally requested an operational limit of 1,200 hours per year for the proposed engine. However, based on the emissions calculations and modeling results described in Sections H and I below, NWCAA will permit a maximum of 900 hours per year of engine operation. NWCAA estimated annual emissions of CO for comparison against the minor NSR modeling thresholds using this annual operating limit. The operating limit has been incorporated into the permit as enforceable condition.

Table 3 below presents projected controlled CO emissions as permitted for the project.

Table 3: Criteria Air Pollutant Emissions – Controlled as Permitted

Pollutant	Emission Factor (lb/hp-hr)	Emissions (lb/hour)	Emissions (ton/yr)	PSD SER [a] (ton/yr)	Minor NSR Modeling Thresholds [b] (ton/yr)	Subject to Modeling?
CO[1]	5.8E-03	3.9	1.7	100	50	No

[a] Prevention of Significant Deterioration (PSD) Significant Emission Rates for major sources in attainment or unclassified areas (40 CFR 52.21(b)(23)).
[b] Ambient impacts of a criteria pollutant are modeled under minor NSR if they exceed the minor NSR modeling threshold. Emission impacts may be modeled when a pollutant is below this threshold if there are reasonable concerns regarding ambient impacts (e.g., horizontal or downward ventilating stacks, close property boundary, stacks less than six feet above roofline, sensitive or high population density nearby).
[1] EPA Tier IV Final standards for engines 130 < kW < 560 (40 CFR 1039.101(b), Table 1).

Emissions of CO from the proposed Tier IV certified engine with a permitted annual operating limit of 900 hours are 3% of the NWCAA minor NSR modeling threshold. There are no reasonable concerns regarding ambient impacts from emissions of CO such as horizontal or downward ventilating stacks, close property boundary, stacks less than six feet above roofline, or sensitive or high population density nearby. No dispersion modeling of CO emissions was performed. Emissions of CO from the project are not projected to exceed or cause to exceed any ambient air quality standard.

H. Toxic Air Pollutant Emissions and Impacts

TAP emissions from the proposed project may not exceed, or cause to exceed, any ambient air quality standard such as the National Ambient Air Quality Standards (NAAQS) or the respective Acceptable Source Impact Level (ASIL) for each TAP as codified in WAC 173-460-150.

Similar to the criteria pollutant impact analysis, at this step NWCAA evaluates the projected ambient impact of each TAP subject to NSR (as presented in Table 2 above) after considering federally enforceable controls, limits (including toxic BACT, or T-BACT), and limits on operation of the emission unit. NWCAA compares the projected controlled TAP emissions against each respective SQER. If projected controlled emissions of any TAP exceed the SQER, air dispersion modeling must be conducted, and model results are compared to the respective ASIL to further evaluate ambient impacts.

Acetaldehyde, acrolein, benzene, formaldehyde, and naphthalene are all organic TAP subject to NSR and their emission factors are dependent upon the amount of VOC present in the engine exhaust. To calculate the controlled projected emissions of these organic TAP, NWCAA first calculated the projected controlled VOC emissions rate using emissions testing data for this specific engine model from the manufacturer. In the testing data, organic emissions were presented as total hydrocarbon, which may include non-VOC compounds (as defined by EPA at 40 CFR 51.100(s)(1)) such as methane, ethane, and acetone. NWCAA conservatively assumed that all hydrocarbon emitted are VOC.

NWCAA then selected the appropriate organic TAP emission factors from the MOVES3 speciation profiles for Tier IV certified engines with the inclusion of DPF (no SCR) as proposed to provide an estimate of controlled TAP emission rates.

Emissions of DEEP are also subject to NSR but were not based on the mass of VOC emitted as they are not solely organic (though they are comprised in part of organic particulate matter). Emissions of DEEP were calculated based on emissions of particulate. Similar to the controlled VOC emission rate estimation methodology described above, NWCAA used emissions testing data for this specific engine model including DPF to estimate controlled particulate emissions. NWCAA conservatively estimated that all particulate emitted in the engine exhaust is DEEP.

As described in Section G above, NWCAA estimated emissions of TAP with annual averaging periods using an annual operating limit of 900 hours per year, and it has been incorporated into the permit as an enforceable condition. For TAP with shorter averaging periods (i.e., 24-hour averaging periods), NWCAA did not use the 900 hour per year operating limit averaged over 365 days as there is no short-term operating limit proposed. For these TAP only the proposed Tier IV certification with DPF control was accounted for, and the emission rate was applied over the entire 24-hour averaging period.

Table 4 below presents projected controlled TAP emissions as permitted for the project.

Table 4: Toxic Air Pollutant Emissions – Controlled as Permitted

TAP	Emission Factor (lb/hp-hr)	Emissions (lb/avg period)	SQER		Modeling Required?
			Avg period	Lb/avg period	
Acetaldehyde[1]	1.53E-06	1	year	60	No
Acrolein[1]	2.20E-07	0.0035	24-hr	0.026	No
Benzene[1]	2.85E-07	0.17	year	21	No
Diesel Engine Exhaust Particulate[2]	2.20E-05	13	year	0.54	Yes
Formaldehyde[1]	4.79E-06	2.9	year	27	No
Naphthalene[3]	3.59E-07	0.22	year	4.8	No

[1]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-4 Toxic Fractions of VOC for Nonroad Diesel Vehicles by Engine Standard for Tier 4 engines with DPF, no SCR, multiplied by VOC emissions, EPA, July 2022

[2]Conservatively assumed all particulate is DEEP

[3]From Speciation Profiles and Toxic Emission Factors for Nonroad Engines in MOVES3, Table 3-5 PAH Emission Factors for Nonroad Diesel Engines, Tier 4 with DPF no SCR, EPA, July 2022

Emissions of acetaldehyde, acrolein, benzene, formaldehyde, and naphthalene range from 1% to 14% of the respective SQER and no further ambient impact analysis is required. Emissions of DEEP exceed the SQER and air dispersion modeling is required.

I. Air Dispersion Modeling

Emissions of TAP that are estimated to exceed their respective SQER must be modeled for comparison against their respective Acceptable Source Impact Level (ASIL) in WAC 173-460-150. NWCAA generally accepts modeling performed using the EPA approved AERSCREEN and AERMOD applications. Modeling results from AERSCREEN are considered a

conservative estimate of projected ambient impacts. If passing modeling results are not demonstrated using AERSCREEN, refined dispersion modeling using AERMOD is required. Only emissions of DEEP are subject to modeling requirements.

The applicant performed air dispersion modeling using the EPA model AERSCREEN for toxic emissions of DEEP. NWCAA was provided with the modeling input and output files and also performed a unique screening run with AERSCREEN using NWCAA emissions calculations and inputs to verify modeling results.

The applicant modeled annual emissions of DEEP assuming an operating limit of 1,200 hours per year. However, because NWCAA's emissions calculations resulted in higher estimated annual DEEP emissions, this annual operating limit was not used. Instead, NWCAA assumed a lower annual operating limit of 900 hours per year when calculating the annual emission rate and evaluating the modeling results, which is an enforceable limit in the permit.

Note that per WAC 173-460-040, an applicant may choose to analyze only the TAP emission increases from the project at this step, rather than the maximum projected TAP emissions from the new equipment. Because PSR is removing an existing engine, the decrease in actual TAP emissions from removal of the engine could have been incorporated into the emission rate modeled. However, PSR did not account for the decrease in actual emissions from removal of the existing emergency engine, which would likely have been negligible as the existing emergency engine is allowed only 50 hours of non-emergency operation per year. Likewise, NWCAA conservatively estimated ambient impacts without accounting for any decrease in actual emissions after removal of the existing emergency engine. Instead, NWCAA calculated the emission rate using the projected maximum emissions from installation of the proposed engine as permitted, shown in Table 4 above and Table 5 below.

The maximum annual concentration of DEEP at 900 hours of annual operation at the closest point of the facility fenceline was estimated in micrograms per cubic meter ($\mu g/m^3$) for comparison against the DEEP ASIL. The results of the AERSCREEN modeling performed by NWCAA are presented in Table 5 below.

Table 5: Modeling Results of TAP Emissions – Controlled as Permitted

TAP	Emission Factor		Modeled Emissions $\mu g/m^3$	ASIL $\mu g/m^3$	Emissions less than ASIL?
	lb/year[1]	g/s			
DEEP	13.29	1.91E-04	3.19E-03	3.30E-03	Yes

[1]Annual emissions were calculated assuming 900 hours of operation per year.

Emissions of DEEP from the proposed Tier IV certified engine with a permitted annual operating limit of 900 hours are modeled at 97% of the ASIL using AERSCREEN. No further air dispersion modeling is required. Emissions of DEEP from the project are not projected to exceed or cause to exceed any ambient air quality standard.

J. Prevention of Significant Deterioration (PSD) Program

Emission increases associated with this project were reviewed for Prevention of Significant Deterioration (PSD) Program applicability.

The facility is an existing PSD major source.

This project is not over the PSD significance thresholds (including 75,000 tpy CO_2e). The project is projected to emit a maximum of approximately 333 metric tpy CO_2e based on the 2025 EPA GHG Hub Emission Factors for Greenhouse Gas Inventories.

The project does not trigger reasonable possibility monitoring under WAC 173-400-720(4)(b)(iii)(G) (40 CFR 52.21(r)(6)). See Table 1.

K. Air Operating Permit (AOP) Program

After consideration of emission increases associated with this project, the Title V Air Operating Permit (AOP) program applicability for the entire source has been reviewed.

The Title V AOP thresholds are based on any of the following;

- Criteria air pollutants: PTE 100 tpy of any one pollutant.
- Hazardous air pollutants: PTE 10 tpy for any single HAP, or 25 ton/year of any combination of HAPs.
- Applicability of any federal NSPS or NESHAP regulation unless it is specifically exempt.

The facility is a Title V source and conditions of this OAC will be incorporated into the AOP during the ongoing AOP renewal.

L. NWCAA Compliance Database (Stratus)

The NWCAA Stratus database has been updated to include the emission unit(s) approved by this OAC.

M. Confidential Business Information (CBI)

The NOC application does not contain any information deemed by the applicant to be CBI.

N. Applicable/Inapplicable Regulations

Relevant sections of NWCAA, state and federal regulations as they relate to the approved emission units listed in the OAC.

1. Northwest Clean Air Agency

NWCAA 520 – Establishes maximum sulfur content for distillate fuels burned in combustion equipment. Per NWCAA 520.12 the engine must be fired on distillate fuel with no more than 0.5% sulfur content. Condition 2 of the OAC requires the engine be fired on fuel with 0.0015% sulfur.

2. State

WAC 173-400 contains requirements similar to those listed above. WAC 173-460 contains requirements for new sources of Toxic Air Pollutants.

3. Federal

NSPS IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines:

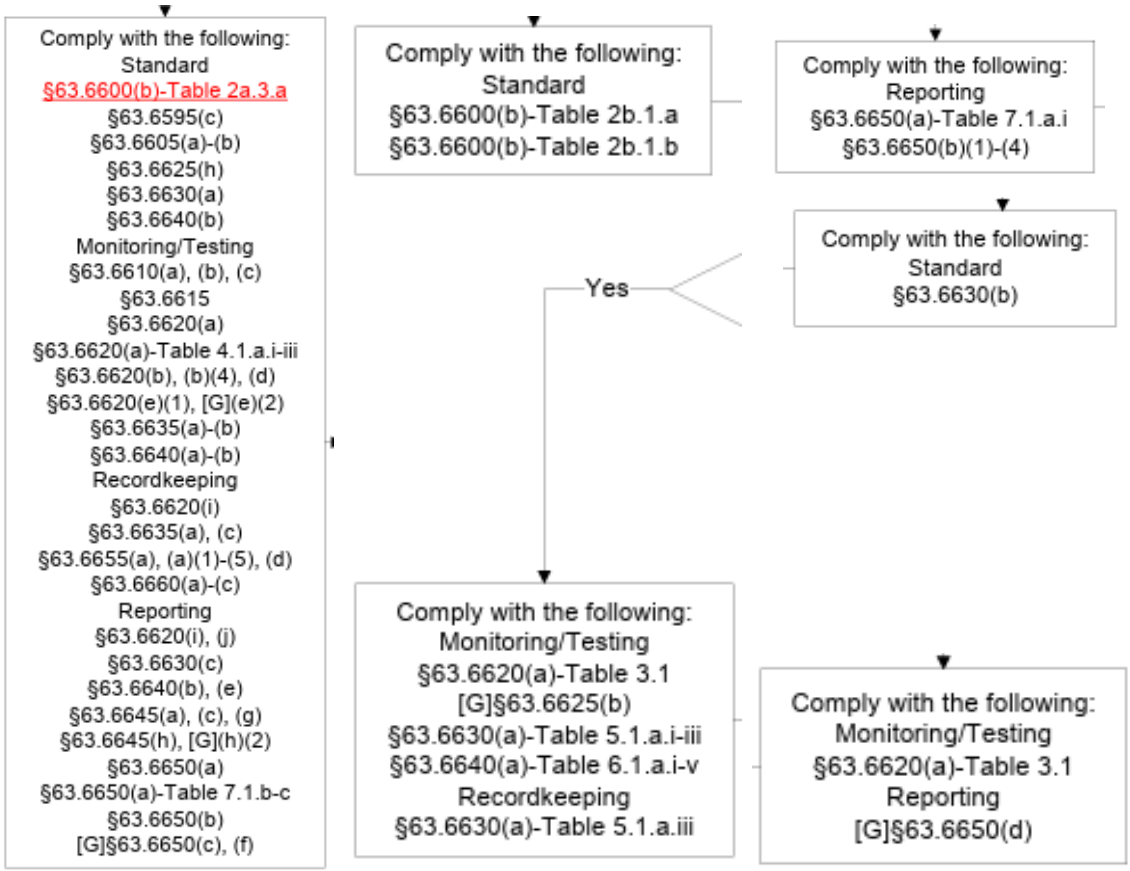
As a non-emergency compression ignition engine manufactured after April 1, 2006, the new engine triggers NSPS IIII applicability and must comply with the requirements. These include compliance with EPA nonroad certification standards, operation and maintenance requirements, and use of ULSD.

The proposed engine is Tier IV Final certified, must be fired on ULSD, and the conditions governing operation, maintenance, and record retention in the OAC are at least as strict as those contained in the NSPS.

NESHAP ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines:

PSR is an existing major source of HAP, and the proposed engine is a new stationary, non-emergency compression-ignition (CI) engine with more than 500 site-rated hp and displacement less than 30 liters per cylinder. The new engine triggers NESHAP ZZZZ applicability and must comply with the requirements. These include compliance with a CO reduction standard (70% or more) or formaldehyde emissions limit (580 µg/m^3 at 15% O_2), semi-annual stack testing for CO or formaldehyde (frequency may be reduced to annual after two tests demonstrate compliance), installation of a continuous parameter monitoring system (CPMS) that monitors catalyst temperature and pressure drop, and reporting and notification requirements.

PSR has elected to comply with the 70% CO reduction standard. For CO, the requirements are summarized below:



O. Best Available Control Technology (BACT) Technology Review

1. This Project is Similar to other NWCAA approved projects

OAC 797 – issued 2/27/2002 – 500 kW engine generator at PSR Wharf

2. Case-By-Case BACT

NESHAP ZZZZ requirements, which include semiannual testing and demonstration of a 70% reduction in CO emissions, regular maintenance of the oxidation catalyst and DPF, and reporting, are considered BACT for CO and T-BACT. Compliance with the NESHAP ZZZZ requirements is required by the OAC. The requirements in the OAC directly point to the language of the NESHAP and the intention is to avoid any conflict between the BACT requirements and compliance with NESHAP ZZZZ.

P. Basis for OAC conditions

1. VE requirement – T-BACT
2. ULSD requirement – Required by NESHAP ZZZZ and as proposed in application
3. CO reduction requirement – CO BACT
4. Testing requirement – CO and T-BACT
5. Pressure drop monitoring requirement - CO and T-BACT
6. Temperature monitoring requirement – CO and T-BACT
7. Runtime limit of 900 hours – Limits controlled PTE
8. Tier IV Final certification – Limits controlled PTE
9. O&M requirement – ensures compliance with CO BACT and T-BACT standard for DPF and oxidation catalyst
10. Maintenance requirement - ensures compliance with CO BACT and T-BACT standard for DPF and oxidation catalyst
11. Record retention requirement – AOP requires 5 years
12. Initial Startup Notification requirement

Q. Correspondence

See the electronic file for a full record of written correspondence.

4/1/26: NOC received from PSR via email.
4/16/26: PSR requests and then rescinds NOC withdrawal.
4/17/26: Permit engineer issues application incomplete notice to PSR and requests additional information.
4/21/26: NWCAA requests more additional information.
4/22/26: PSR responds with partial information request.
4/28/26: PSR responds with partial information request.
4/30/26: PSR responds with remainder of information request.
5/11/26: PSR pays NSR fees, permit application deemed complete.
5/26/26: PSR sent draft OAC for review.
5/27/26: PSR responds to draft review with no comments.