

**COVERED SOURCE PERMIT APPLICATION REVIEW**  
**Covered Source Permit (CSP) No. 0547-01-CT**  
**Application for Renewal and Minor Modification No. 0547-05**

**Applicant:** Northwest Demolition and Dismantling      **Mailing**      P.O. Box 230819  
**Facility:** 200 TPH Stone Processing and      **Address:**      Tigard, Oregon 97281  
200 Cy/HR Screening Plant

**Located At:** Various Locations State of Hawaii

**Initial Location:** Hickam Air Force Base, Oahu

**Equipment:** One (1) 200 TPH Eagle Portable Stone Processing Plant  
Model No. 1000-15CV, Serial No. 30008;  
Manufacturing Date = 2005;

One (1) 375 HP Detroit Diesel Engine Generator  
Model No. 6063MK33, Serial No. 06R0727141 (Nonroad Engine)  
Fuel Consumption = 19.6 gal/hr; Fuel Oil No. 2  
Exhaust Diameter = 0.1524m, Height = 4.11m  
Velocity = 64.4735 m/s; Actual Flow Rate = 1.176091 m<sup>3</sup>/s; Temp = 675.2K  
Manufacturing Date = 2003;

200 cy/hr Read Screen-All. Model 90B, Serial No. 1080 with insignificant  
thirty-six (36) hp diesel engine (integrated with screen so no model or serial nos.)

**Responsible**

**Official:** Mr. Darin Leibelt  
**Title:** Project Manager  
**Company:** Northwest Demolition and Dismantling  
**Address:** 1600 Pennsylvania Avenue  
Kailua, Hawaii 96734  
**Phone:** (808) 585-6077 or (808) 330-7320

**1. PERMIT BACKGROUND**

Northwest Demolition and Dismantling on April 16, 2013, submitted a renewal and minor modification application for a covered source permit to operate the equipment listed above. Additional information was submitted on May 13, 2015. The 200 TPH Eagle crusher from permit 0547-01-CT and the 200 cy/hr Read screener from permit 0596-01-NT will be combined into a single permit with closure of 0596-01-NT upon issuance of permit 0547-01-CT. The original 5' x 12' CEC triple-deck screener was removed from permit 0547-01-CT and will remain in the continental United States. The exchange of screens is a minor modification since it does not increase emissions.

**2. PROCESS BACKGROUND**

SIC CODE 1442, Construction Sand and Gravel

**3. APPLICABLE REQUIREMENTS**

3.1 Hawaii Administrative Rules (HAR)

Chapter 11-59, Ambient Air Quality Standards

Chapter 11-60.1, Subchapter 1, General Requirements

Chapter 11-60.1, Subchapter 2, General Prohibitions

11-60.1-31, Applicability

11-60.1-32, Visible Emissions

11-60.1-33, Fugitive Dust

11-60.1-38, Sulfur Oxides from Fuel Combustion

Chapter 11-60.1, Subchapter 5, Covered Sources

Chapter 11-60.1, Subchapter 6, Fees for Covered Sources, Noncovered Sources, and

Agricultural Burning

11-60.1-111, Definitions

11-60.1-112, General fee provisions for noncovered sources

11-60.1-113, Application fees for noncovered sources

11-60.1-114, Annual fees for noncovered sources

Chapter 11-60.1, Subchapter 10, Field Citations

- 3.2 40 Code of Federal Regulations (CFR) Part 60, New Source Performance Standards (NSPS), Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is **not applicable** to the diesel engine because this unit is operating as a non-road engine. Non-road engines are exempt from 40 CFR Part 60, Subpart IIII. The non-road engine designation was established pursuant to 40 CFR 89.2(1)(iii), that, by itself or in or on a piece of equipment, is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.
- 3.3 40 CFR Part 60, Subpart OOO - Standards of Performance for Non-metallic Mineral Processing Plants is applicable to portable crushed stone plant with capacities greater than 150 TPH that commence construction, reconstruction, or modification after August 31, 1983. The proposed unit meets these conditions and **is subject to Subpart OOO**.
- 3.4 This source is **not subject to 40 CFR Part 61** National Emission Standards for Hazardous Air Pollutants since this source is not listed under 40 CFR Part 61.
- 3.5 This source is **not subject to 40 CFR Part 63** (National Emission Standards for Hazardous Air Pollutants for Source Categories).
- 3.6 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart ZZZZ, NESHAP for Stationary Reciprocating Engines is **not applicable** to the diesel engine because this unit is operating as a non-road engine. Non-road engines are exempt from 40 CFR Part 63, Subpart ZZZZ.
- 3.7 This source is **not subject to PSD** (Prevention of Significant Deterioration) requirements because it is not a major stationary source as defined in 40 CFR 52.21 and HAR Title 11, Chapter 60.1, Subchapter 7; (criteria air pollutant > 100 or 250 TPY as applicable).
- 3.8 This source is **not subject to CAM** (compliance assurance monitoring) since the proposed equipment is not classified as a major source (criteria pollutant > 100 TPY); has no pre-control device potential emissions exceeding applicable major source thresholds; nor fitted with an "active" air pollution control device; and not or not part of a facility with total emissions exceeding major source threshold.

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- 3.9 This source is **not subject to AERR** (Air Emissions Reporting Requirements) since 40 CFR Part 51, Subpart A – Emissions Inventory Reporting Requirements, determines AERR based on facility wide emissions of each air pollutant at the AERR triggering levels. The emissions do not exceed respective AERR threshold levels.
- 3.10 The Clean Air Branch requests annual emissions reporting from those facilities that have facility-wide emissions exceeding in-house reporting levels and for all covered sources. This facility **is subject to** annual emissions reporting requirements since it is a covered source.
- 3.11 This source is **not subject to BACT** analysis because it is an existing source with no proposed increase in emissions from the proposed minor modification. A BACT analysis is required for new sources or modifications to sources that have the potential to emit or have a net increase in emissions above significant levels considering any limitations as defined in HAR, §11-60.1-1.
- 3.12 A major source as defined in Section 11-60.1-1 of HAR Title 11, has the potential to emit any HAP of 10 TPY or more, or 25 TPY or more of any combination of HAPs, or 100 TPY or more of any criteria air pollutant. Calculated emission(s) do not exceed these levels, and thus, this facility **is classified as a minor (noncovered) source.**
- 3.13 A synthetic minor source is a facility that is potentially major (as defined in HAR 11-60.1-1), but is made nonmajor through federally enforceable permit conditions. This facility **is not a synthetic minor source** because potential emissions do not exceed the major source threshold (100 TPY) when the facility is operated at its maximum capacity continuously for 8,760 hours per year.

#### 4. **Air Pollution Controls**

- 4.1 A water truck or water hoses will be used as necessary to minimize fugitive emissions on facility grounds and storage piles.

#### 5. **TOTAL EMISSIONS**

- 5.1 Total facility emissions are summarized within the immediate table below.

<b>Pollutant</b>	<b>Emissions based on 8,760 hr/yr (ANNUAL – NO LIMIT)</b>	<b>Significant BACT Level</b>	<b>AERR Level</b>	<b>DOH Level</b>
CO	<b>6.93</b>	100	1000	250
NOx	<b>12.67</b>	40	100	25
PM-30 (TSP)	<b>9.82</b>	25	-	25
PM-10	<b>6.14</b>	15	100	25
PM-2.5	<b>4.29</b>	-	100	-
SOx	<b>0.02</b>	40	100	25
TOC/VOC	<b>4.26</b>	40	100	25
HAPs	<b>0.05</b>	-	5	5

5.2 Individual equipment emissions are summarized within the immediate table below.

<b>Table 2: Total Equipment Emissions 8,760 hr/yr (TPY):</b>					
<b>Pollutant</b>	<b>Impact Crusher</b>	<b>Diesel Engine</b>	<b>Screener</b>	<b>Total</b>	<b>Storage Piles Unpaved Roads</b>
CO	--	<b>6.93</b>	--	<b>6.93</b>	--
NOx	--	<b>12.67</b>	--	<b>12.67</b>	--
PM-30(TSP)	<b>1.62</b>	<b>3.96</b>	<b>4.24</b>	<b>9.82</b>	<b>83.84</b>
PM-10	<b>0.70</b>	<b>3.96</b>	<b>1.48</b>	<b>6.14</b>	<b>32.98</b>
PM-2.5	<b>0.15</b>	<b>3.96</b>	<b>0.18</b>	<b>4.29</b>	<b>8.54</b>
SOx	--	<b>0.02</b>	--	<b>0.02</b>	--
TOC/VOC	--	<b>4.26</b>	--	<b>4.26</b>	--
HAPs	--	<b>0.05</b>	--	<b>0.05</b>	--

5.4 Greenhouse Gas (GHG) Emissions

Total GHG emissions are summarized in the table below

<b>Green House Gas Emissions</b>			
<b>GHG</b>	<b>GWP</b>	<b>GHG Mass-Based Emissions (TPY)</b>	<b>CO<sub>2</sub>e Based Emissions (TPY)</b>
Carbon Dioxide (CO <sub>2</sub> )	1	1589.75	1589.75
Methane (CH <sub>4</sub> )	25	0.06	1.61
Nitrous Oxide (N <sub>2</sub> O)	298	0.01	3.84
Total Emissions:			1595.21

- a. Based on 19.6 gallons of diesel per hour at 0.138 MMBtu/gal
- b. Emission Factors determined from EPA document Emission Factors for Greenhouse Gas Inventories.

**6. INSIGNIFICANT (CSP)**

6.1 The thirty-six (36) hp diesel engine powering the 200 cy/hr Read Screen-All is considered insignificant due to 11-60.1-82(f)(2)

**7. ALTERNATIVE OPERATING SCENARIOS**

7.1 The permittee may replace the diesel engine and diesel engine generator with a temporary replacement unit of similar size with equal or lesser emissions if any repair reasonably warrants the removal of the diesel engine or diesel engine generator from its site (i.e., equipment failure, engine overhaul, or any major equipment problems requiring maintenance for efficient operation).

**8. AIR QUALITY ASSESSMENT**

8.1 An ambient air quality analysis (AAQA) was not conducted for this renewal. No modifications were made to the equipment or operational limits, that would require ambient air quality modeling. See previous review for results from initial assessment.

**9. SIGNIFICANT PERMIT CONDITIONS**

- 9.1 The diesel engine generators shall not remain at any one site for more than twelve (12) consecutive months.
- 9.2 The diesel engine generators shall not be operated as a seasonal source. A seasonal source is a stationary source that remains in a single site on a permanent bases (i.e., at least two (2) years) and operates at that single site approximately three (3) months or more each year.
- 9.3 Any engine (or engines) that replaces an engine at a site that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period for purposes of determining compliance with the operating restrictions specified for non-road engines.
- 9.4 Reason for significant conditions above: These conditions were specified to ensure that the diesel engine generators operate as non-road engines. Non-road engines are exempt from 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ.
- 9.5 The diesel engine generators shall be fired only on ultralow sulfur diesel fuel with the following specifications:
  - a. Maximum sulfur content of 0.0015% by weight; and
  - b. Minimum cetane index of forty (40) or maximum aromatic content of thirty-five percent (35%).

Reason: To ensure that the diesel engine operates as a nonroad engine. Nonroad engines are not subject to 40 CFR Part 63, Subpart ZZZZ.

**10. CONCLUSION**

- 10.1 Northwest Demolition & Dismantling has submitted an application for permit renewal with minor modification. Potential emissions were based on the maximum rated capacities of the equipment. Recommend issuance of the covered source permit subject to the incorporation of the significant permit conditions, thirty-day (30-day) public comment period, and forty-five-day (45-day) Environmental Protection Agency review period.

Joseph Baumgartner  
11/23/2015