

PROPOSED

COVERED SOURCE MINOR MODIFICATION REVIEW (0547-01) APPLICATION NO. 0547-03

APPLICANT: Northwest Demolition & Dismantling

LOCATION: Hickam AFB (initial)
Radford Terrace (current)

RESPONSIBLE OFFICIAL: Mr. Brian H. Smith
President
(503) 638-6900

POC: Same as responsible official

MAILING ADDRESS: P.O. Box 230819
Tigard, OR 97281

SIC CODE: 1442 (Construction Sand and Gravel)

PROPOSED PROJECT:

The subject application and filing fee of \$100.00 were submitted March 31, 2006 to replace the diesel engine generator of the 200 TPH stone processing plant.

EQUIPMENT:

Currently permitted equipment: 300 HP John Deere Engine, model no. 6081HF001, serial no. RG6081H023213

Proposed replacement: 375 HP Detroit Diesel Engine, model no. 6063MK33, serial no. 06R0727141

AIR POLLUTION CONTROL EQUIPMENT:

None proposed for modification

APPLICABLE REQUIREMENTS:

Hawaii Administrative Rules (HAR)

Chapter 11-59, Ambient Air Quality Standards

Chapter 11-60.1, Air Pollution Control

Subchapter 1, General Requirements

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

Subchapter 5, Covered Sources

Subchapter 6, Fees for Covered Sources, Sections 111-115

11-60.1-111 Definitions

11-60.1-112 General fee provisions for covered sources

11-60.1-113 Application fees for covered sources

11-60.1-114 Annual fees for covered sources

11-60.1-115 Basis of Annual Fees for Covered Sources

Subchapter 10, Field Citations

PROPOSED

PREVENTION OF SIGNIFICANT DETERIORATION (PSD):

PSD review is not applicable since the facility is not a major stationary source.

NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS):

No hazardous air pollutants are emitted at significant levels (>10 TPY single HAP or > 25 TPY for total HAPs). Therefore, NESHAPS does not apply.

NEW SOURCE PERFORMANCE STANDARDS (NSPS):

Not applicable for proposed modification. See previous review dated 7/13/04 for applicability regarding the 200 TPH stone processing plant

CONSOLIDATED EMISSIONS REPORTING REQUIREMENTS (CERR):

Currently, CERR is not applicable. With the proposed new modification, there is no change in status.

MAJOR SOURCE/SYNTHETIC MINOR SOURCE APPLICABILITY:

A synthetic minor is a facility that is potentially major as defined in HAR 11-60.1-1 (e.g., ≥ 100 TPY), but is made non-major through operational restrictions by enforceable permit conditions. All fugitive emissions being emitted from the emission units and associated stationary activities (e.g., storage piles) are included in the applicability of synthetic minor. With the proposed new modification, the facility still is classified as a synthetic minor.

COMPLIANCE ASSURANCE MONITORING (40 CFR Part 64):

Applicability of the Compliance Assurance Monitoring (CAM) rule is determined on a pollutant specific basis for each affected emission unit. Each determination is based upon a series of evaluation criteria. In order for a source to be subject to CAM, each source must:

1. Be located at a major source per Title V of the Clean Air Act Amendments of 1990;
2. Be subject to federally enforceable applicable requirements;
3. Have pre-control device potential emissions that exceed applicable major source thresholds;
4. Be fitted with an "active" air pollution control device; and
5. Not be subject to certain regulations that specifically exempt it from CAM.

Compliance Assurance Monitoring (CAM) does not apply since the facility is not a major source.

BEST AVAILABLE CONTROL TECHNOLOGY (BACT) REQUIREMENTS:

BACT analysis is required for new covered sources and significant modifications to covered sources that have the potential to emit or increase emissions above significant levels, as defined in 11-60.1-1, considering any limitations, enforceable by the Director, on the covered source to emit a pollutant. All fugitive emissions (e.g., emitted from the emission unit(s) and associated stationary activities such as storage piles, except emissions from paved/unpaved roads traversed by mobile sources) are counted toward BACT. There are no fugitive emissions for this modification. The net emissions change is $+0.10 < 100$ TPY significant level for CO, and thus, BACT is not applicable.

INSIGNIFICANT ACTIVITIES/EXEMPTIONS:

None listed for this modification. See review dated 7/13/04 for current list of insignificant activities.

PROPOSED

ALTERNATE OPERATING SCENARIOS:

None proposed for this modification.

PROJECT EMISSIONS:

The annual emission calculations are based on manufacturer's data and 3,500 hr/yr limit. The net emissions change is calculated as net *emissions change = proposed limit – previous limit* (note: for major stationary source, *net emissions change = proposed limit – average of two years actual emissions*)

Pollutant	Emission Factor, g/hr		Annual Emissions, TPY		Emissions Change, TPY
	John Deere	Detroit	John Deere	Detroit	
SO _x	0.5 lb/MMBtu	310	1.77	1.20	-0.57
NO _x	1,600	1445	6.17	5.58	-0.59
CO	93	120	0.36	0.46	+0.10
TOC	48	18.2	0.19	0.07	-0.12
PM ₁₀	96%TSP=24.9 6	21.22	0.096	0.082	-0.014
PM _{2.5}	90%TSP=23.4 0	19.89	0.090	0.077	-0.013
TSP	26	22.1	0.10	0.085	-0.015

The net emissions increase is +0.10 TPY from CO. The proposed change is considered a minor modification pursuant to 11-60.1-81, Definition of "minor modification."

AIR QUALITY ASSESSMENT:

Previous review dated 7/13/04 indicates compliance with SAAQS. With the exception of CO, proposed emissions from the Detroit diesel engine results in lower emissions and thus, also would comply with SAAQS. Emission increase from CO is small and would still meet SAAQS as shown below. The previous emission concentration is shown in parenthesis.

Pollutant	Averaging period	Concentration, ug/m ³	Background, ug/m ³	Total, ug/m ³	SAAQS, ug/m ³
CO	1-hr	^a 58.28 (45.15)	3,990	4,048	10,000
	8-hr	40.79 (31.61)	1,582	1,623	5,000

^a 0.0333 g/s [(1,750 ug/m³) / (1 g/s)] = 58.28 ug/m³

OTHER ISSUES:

None.

SIGNIFICANT PERMIT CONDITIONS:

None.

CONCLUSION AND RECOMMENDATION:

The proposed diesel engine equipment decreases all criteria pollutant emissions except CO with the increase being only 0.10 TPY. As such, the proposed replacement diesel engine is considered a minor modification. Recommend issuance of permit amendment pending EPA 45-day period. Thirty-day public review period is not required for a minor modification

Carl Ibaan
June 28, 2006