

PROPOSED
Reviewed by: CBS
December 29, 2006

Temporary Covered Source Permit (CSP) No. 0355-02-CT Review
Application for Significant Modification No. 0355-04

Applicant: West Hawaii Concrete

Equipment Description:

This permit application proposes the following modifications to its equipment list:

Add

460 tph JCI 54" cone crusher (model no. K300, serial no. tbd).

Delete

250 tph Cedarapids horizontal rotor secondary impact crusher (model no. 5048, serial no. 43411).

Air Pollution Controls: Water sprays.

Plant Location: This cone crusher to be co-located with the existing set of equipment.

Mailing Address: same as previous review.

Responsible Official/Contact:
same as previous review.

Consultant:
same as previous review.

Proposed Project:

Standard Industrial Classification Code (SICC) is 1429 - crushed and broken stone, not elsewhere classified.

The proposed modification includes the equipment change (as mentioned above) only. Although there is an increase in maximum production rate with the new crusher, there will be no increase in potential emissions overall since the current permit includes a 2,000,000 ton/yr limit at each location.

This permit review is based on the application and its revisions dated September 13 and November 9, 2006. The check for the application fee of \$500.00 for a modification to a non-air toxic temporary covered source permit (with <40 tpy of criteria pollutants and <1 tpy of HAPs) will be processed and the receipt will be enclosed with the issued permit.

Applicable Requirements:

There is no change in applicability to the facility since there is no increase in potential emissions.

Hawaii Administrative Rules (HAR) Title 11 Chapter 59 - Ambient Air Quality Standards
Hawaii Administrative Rules (HAR) Title 11 Chapter 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 111,112-115
Subchapter 8 - Standards of Performance for Stationary Sources
Subchapter 10 - Field Citations

New Source Performance Standards (NSPS), specifically 40 CFR Part 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants since the portable production capacities of the plants are over 150 tph and the manufacture dates of the equipment are after August 31, 1983.

Synthetic Minor since the 1,130 tph plant would be a major source (≥ 100 tpy of PM and NO_x) if it operated continuously.

However, the new cone crusher is subject to the following:

40 CFR Part 60 - New Source Performance Standard (NSPS) Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants since the manufacture date of the cone crusher is after August 1983 and has a maximum capacity of greater than 150 tph.

Non-Applicable Requirements:

There is no change in applicability to the facility since there is no increase in potential emissions.

National Emission Standards for Hazardous Air Pollutants (NESHAPS) and Maximum Achievable Control Technology (MACT) since there will be no significant emission of HAPs.

Prevention of Significant Deterioration (PSD) since this is not a major stationary source.

Consolidated Emissions Reporting Rule (CERR) since each potential air pollutant emission for the facility is less than 100 tpy.

Compliance Assurance Monitoring (CAM) is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 Code of Federal Regulations, Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential precontrol emissions that are greater than the major source level [>100 tpy]; and (5) not otherwise be exempt from CAM. CAM is not applicable to the boilers since items 1,3, and 5 do not apply.

A Best Available Control Technology (BACT) analysis is required for new sources or modifications to existing sources that would result in a net significant emissions increase as defined in HAR, Section 11-60.1-1. This is a new source with no significant increase in emissions (see **Table 1**). Therefore, a BACT analysis is not required. In any event, this stone processing facility uses water sprays to control fugitive dust. Water sprays are considered BACT for other sources that have similar activities.

Insignificant Activities/Exemptions:

None proposed.

Alternative Operating Scenarios:

None proposed.

Project Emissions:

The new potential emissions were calculated by the consultant and checked by the Department of Health (DOH) using current AP-42 emission factors for stone processing (fugitive source). Emissions from storage piles/handling and unpaved roads were not calculated since the potential emissions for the BACT determination correspond to the cone crusher only. In **Table 1**, the maximum potential annual emissions for the new cone crusher are shown.

For detailed emission factors, hourly emission rates, and calculations see Appendix A of the application.

Table 1 – Potential Cone Crusher Emissions

	Cone Crusher (tpy)	Significant Level (tpy)
SO ₂		≥40
NO _x		≥40
CO		≥100
PM	1.48	≥25
PM ₁₀	0.63	≥15
PM _{2.5}	0.13	n/a
VOC		≥40
HAPs		n/a

Note:

1. All emissions were based on maximum production rate at 2,000,000 tpy of stone.
2. All fugitive emissions include controlled efficiency factors (if available in AP-42) for water sprays.
3. Emissions include 2 conveyor transfer points.

Ambient Air Quality Analysis:

A new ambient air quality analysis (AAQA) is not required since there is no proposed change to the diesel engines or hours of operations. Also, an AAQA is generally not required for intermittent fugitive emissions. Therefore, the previous AAQA still apply.

Other Issues:

None.

Significant New Permit Conditions:

1. Add the new cone crusher to the equipment description; and
2. Add NSPS OOO requirements to that new cone crusher.

Conclusion and Recommendation:

In conclusion, it is the Department of Health's preliminary determination that the facility will comply with all State and Federal laws, rules, regulations, and standards with regards to air pollution. This determination is based on the application submitted by West Hawaii Concrete. Therefore, a Significant Modification to a Covered Source Permit for West Hawaii Concrete is recommended subject to the following:

1. The above special conditions;
2. 30-day public review period; and
3. 45-day EPA review period.