

**PERMIT APPLICATION REVIEW  
TEMPORARY COVERED SOURCE PERMIT NO. 0242-01-CT  
Application for Minor Modification No. 0242-16**

**Company:** Goodfellow Brothers, Inc.

**Mailing Address:** P.O. Box 220  
Kihei, Hawaii 96753

**Facility:** 780 TPH Stone Processing Plant with 1 MW/1.36 MW Diesel Engine Generator and 400 TPH Mobile Stone Processing Plant with Integral Diesel Engines

**Location:** Various Temporary Sites, State of Hawaii

**Initial Location:** Kihei Baseyard, Kihei, Maui

**SIC Code:** 1429 (Crushed and Broken Stone, Not Elsewhere Classified)

**Responsible Official:** Mr. Dennis McCarthy  
Crusher Superintendent  
(808) 268-8088

**Contact:** Mr. J. W. Morrow  
Environmental Management Consultant  
1481 South King Street, Suite 548  
Honolulu, Hawaii 96814  
(808) 942-9096

**PROPOSED PROJECT**

Goodfellow Brothers, Inc. (GBI) owns and operates a variety of crushers, screens, and conveyors for stone processing activities. The equipment is used to crush basalt and other materials for construction purposes. Materials are batch-dropped into a primary crusher, forwarded via conveyors to either a stockpile or to a secondary and possibly a tertiary crusher. The stockpiles either remain throughout the duration of the project or are moved by front-end loaders.

The equipment is deployed to various locations and may be erected in several different configurations depending on the project requirements. The current permit covers most of GBI's equipment inventory of crushers, screen trailers, and diesel engine generators. The permitted inventory of equipment also includes crushers with integrated diesel engines. To allow operational flexibility, the permit lists the maximum quantity and type of equipment allowed at a site, which allows GBI to use any or all of the equipment listed. The maximum number of temporary stone processing plant locations GBI is permitted to operate simultaneously within the State of Hawaii is twenty-five (25).

Proposed Modification

GBI has submitted an application for minor modification to operate a 400 TPH mobile jaw crusher. The crusher was previously listed on the permit as equipment number K-183, but was removed from the permit. GBI is proposing to add K-183 back into the permit.

The existing permit limits the number of specific types of equipment allowed at each temporary site and limits the operating hours at each site. The existing permit allows two 400 TPH or smaller mobile primary/secondary jaw crushers to operate at each “Non-Mobile/Mobile Stone Processing Plant” site. There will be no increase in emissions due to the proposed 400 TPH mobile jaw crusher.

The proposed modification meets the criteria for minor modification as defined in HAR §11-60.1-81. There are no increases in emissions due to the proposed 400 TPH mobile jaw crusher. There are also no changes to existing monitoring, reporting, or recordkeeping requirements.

The non-mobile/mobile plant will be limited to 1,600 hours at any one location in any rolling twelve-month (12-month) period. The mobile plant will be limited to 1,800 hours at any one (1) location in any rolling twelve-month (12-month) period. The operating hour limitations are needed for the stone processing plants to remain a non-major source.

There are no other proposed changes to existing equipment in the design or operation of the facility.

**EQUIPMENT DESCRIPTION**

1. 400 TPH Mobile Jaw Crusher, Nordberg model no. LT105, serial no. 73599, with 300 hp Caterpillar diesel engine, model no. C-9 DITA, serial no. MBD02002: equipment no. K-183;

**AIR POLLUTION CONTROLS**

The crushing and screening plants are equipped with water spray systems to control fugitive dust. Water trucks/water sprays will be used as necessary to minimize fugitive dust from plant operations, material transfer points, stockpiles, and plant roads.

**APPLICABLE REQUIREMENTS**

Hawaii Administrative Rules (HAR)

Title 11 Chapter 59, Ambient Air Quality Standards

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, Noncovered Sources, and Agricultural Burning

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 8, Standards of Performance for Stationary Sources  
11-60.1-161, New Source Performance Standards  
Subchapter 9, Hazardous Air Pollutant Sources  
Subchapter 10, Field Citations

Standard of Performance for New Stationary Sources (NSPS), 40 Code of Federal Regulations (CFR) Part 60

Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the stone processing plants because the maximum capacities of the plants are greater than 150 tons/hour, and the plants were manufactured after August 31, 1983.

Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to the diesel engines and diesel engine generators because the engines are considered nonroad engines as defined in 40 CFR §1068.30. Subpart IIII applies to stationary internal combustion engines that are not nonroad engines.

National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 61

This source is not subject to NESHAPs because there are no standards in 40 CFR Part 61 applicable to this facility.

NESHAPs for Source Categories (Maximum Achievable Control Technology (MACT)), 40 CFR Part 63

Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) is not applicable to diesel engines and diesel engine generators because the engines are considered nonroad engines as defined in 40 CFR §1068.30. Subpart ZZZZ applies to stationary internal combustion engines that are not nonroad engines.

Prevention of Significant Deterioration (PSD), 40 CFR Part 52, §52.21

This source is not subject to PSD 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.

Compliance Assurance Monitoring (CAM), 40 CFR 64

This source is not subject to CAM because the facility is not a major source. The purpose of 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 CFR 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 pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM.

Air Emissions Reporting Requirements (AERR), 40 CFR Part 51, Subpart A

AERR is not applicable because potential emissions from the facility do not exceed AERR thresholds.

DOH In-house Annual Emissions Reporting

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. Annual emissions reporting will be required because this facility is a covered source.

Best Available Control Technology (BACT)

This source is not subject to BACT analysis because there is no net increase in potential emissions due to the modification. BACT analysis is required for new sources or modifications to sources that have the potential to emit or increase emissions above significant levels considering any limitations as defined in HAR, §11-60.1-1.

Synthetic Minor Source

A synthetic minor source is a facility that is potentially major, as defined in HAR, §11-60.1-1, but is made non-major through federally enforceable permit conditions. This facility is a synthetic minor source because potential NO<sub>x</sub> emissions exceed major source thresholds when the facility is operated without limitations for 8,760 hours/year.

**INSIGNIFICANT ACTIVITIES / EXEMPTIONS**

The diesel engines powering the 661 TPH mobile screens and radial stackers are considered insignificant activities in accordance with HAR §11-60.1-82(f)(2) because the heat input capacities of each diesel engine is less than one (1) MMBtu/hr.

**ALTERNATIVE OPERATING SCENARIOS**

Diesel Engines and Diesel Engine Generators

The permittee may replace each 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).

**PROJECT EMISSIONS**

There will be no changes in emissions due to the proposed 400 TPH mobile jaw crusher.

Total facility emissions of the Mobile Stone Processing Plant are summarized in the table below, referenced from review no. 0242-15.

Mobile Stone Processing Plant

<b>Total Facility Emissions and Trigger Levels (TPY)</b>					
<b>Pollutant</b>	<b>Emissions (With Limits)</b>	<b>Emissions (No Limits)</b>	<b>BACT Significant Levels</b>	<b>AERR Thresholds</b>	<b>DOH Levels</b>
CO	4.7	23.0	100	1000	250
NO <sub>x</sub>	22.7	110.3	40	100	25
SO <sub>2</sub>	6.7	32.8	40	100	25
PM	10.8	52.7	25	-	25
PM-10	5.0	24.4	15	100	25
PM-2.5	2.2	10.6	10	100	-
VOC	0.5	2.5	40	100	25
HAPs	0.05	0.25	-	-	5

**AIR QUALITY ASSESSMENT**

An ambient air quality impact analysis (AAQIA) is not required for the proposed 400 TPH mobile jaw crusher because emissions are fugitive in nature. The Department of Health air modeling guidance generally does not require an ambient air quality impact analysis for fugitive emissions.

**SIGNIFICANT PERMIT CONDITIONS**

The updated permit conditions consist of the following (additions are underlined):

1. Revise Attachment II, Special Condition No. A.1
  - x. 400 TPH Mobile Jaw Crusher, Nordberg model no. LT105, serial no. 73599, with 300 hp Caterpillar diesel engine, model no. C-9 DITA, serial no. MBD02002; equipment no. K-183;

Reason: Add the proposed crusher to the equipment list.

2. Revise Attachment II, Special Condition No. C.2.b
  - b. Mobile Stone Processing Plant
    - i. Two (2) 400 TPH or smaller mobile primary/secondary jaw crushers, equipment nos. K-150, K-164, K-183, K-228, and K-229;
    - ii. Two (2) 450 TPH or smaller mobile secondary cone crushers, equipment nos. K-184 and K-204;
    - iii. Two (2) 881 TPH or smaller mobile screens, equipment nos. K-167, K-176, K-210, and K-213;
    - iv. Six (6) storage piles; and
    - v. Various conveyors and stackers.

Reason: Update the allowable equipment at each plant location.

All other permit conditions of CSP No. 0242-01-CT, issued on November 21, 2014, shall not be affected and shall remain valid.

**CONCLUSION**

Goodfellow Brothers, Inc. has submitted an application for a minor modification to add a 400 TPH mobile jaw crusher to its permit. There will be no increase in emissions. Recommend issuance of the covered source permit subject to the incorporation of the significant permit conditions and forty five-day (45-day) Environmental Protection Agency review period.

Mark Saewong  
March 4, 2015