

**PERMIT APPLICATION REVIEW  
 TEMPORARY COVERED SOURCE PERMIT No. 0542-01-CT  
 Application for Significant Modification No. 0542-04**

**Company:** Jas. W. Glover, Ltd.

**Mailing Address:** P.O. Box 579  
 Honolulu, Hawaii 96809

**Facility:** 300 TPH Portable Drum Mix Asphalt Plant

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

**Current Location:** Puunene Quarry, Puunene, Maui

**SIC Code:** 2951 (Asphalt Paving Mixtures and Blocks)

**Responsible Official:** Mr. John Romanowski  
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**Equipment:** The 300 TPH Portable Asphalt Plant encompasses the following equipment and associated appurtenances.

<b>Facility Equipment</b>				
<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Manuf. Date</b>
300 TPH Drum Mixer	CMI Corp.	PTD-300	145	2003
Burner	Hauck	Eco-Star II		2003
Baghouse for Drum Mixer	CMI Corp.	RA318P	RA318PTD0233	2003
1085 bhp DEG	Cummins	QST30-G2	37208737	2003
Hot Oil Heater	CMI Corp.	CEI-2000	CO3-056	2003
4' x 10' Scalping Screen	CMI Corp.	PC-30X47	337	2003
10' x 14' Aggregate Bin	CMI Corp.	PAB-432	233	2003
300 TPH Lime Feeder System:				
3,500 Gal Tank & Pugmill	CMI Corp.	PMS303530	117	2006
Portable Self-erect Silo	CMI Corp.	MFS-350PSE	108	2006
Baghouse	CMI Corp.	PJ-159		2006
300 TPH RAP Bin/Crusher	Terex	RB120P	206	1/15/2010

**BACKGROUND**

Jas. W. Glover, Ltd. has submitted an application for a significant modification for their temporary covered source permit. The modification consists of the addition of a 300 TPH recycled asphalt pavement (RAP) bin and crusher. The operation of the RAP bin/crusher will be subject to existing operational limits of the plant, which is equivalent to 3,000 hours in any rolling 12-month period.

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

Process

A front end loader drops RAP into a bin, which is transported through a roll crusher where clumps of RAP are broken. It is then conveyed to the drum mixer for mixing with virgin aggregate and asphalt.

**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 CFR Part 60

1. Subpart I - Standards of Performance for Hot Mix Asphalt Facilities is applicable to the 300 TPH HMA facility because the facility commenced construction or modification after June 11, 1973.
2. Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the RAP bin/crusher, associated conveyors, and any other affected facility (as defined in 40 CFR §60.670 for hot mix asphalt facilities) because the maximum capacity of the plant is greater than 150 tons/hour, and the equipment was manufactured after August 31, 1983.

3. Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to the diesel engine generator because the engine was manufactured before April 1, 2006.

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

This source is not subject to NESHAPS as no hazardous air pollutants are emitted at significant levels and there are no NESHAPS requirements in 40 CFR Part 61.

National Emission Standards for Hazardous Air Pollutants 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 the diesel engine generator because it is classified as an existing source (constructed or reconstructed before June 12, 2006). An existing compression ignition (CI) stationary RICE does not have to meet the requirements of this subpart and of subpart A of this part.

Prevention of Significant Deterioration (PSD)

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 since 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 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 pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM.

Consolidated Emissions Reporting Rule (CERR)

This source is not subject to CERR since 40 CFR Part 51, Subpart A - Emissions Inventory Reporting Requirements, determines CERR based on facility wide emissions of each air pollutant at the CERR triggering levels. The emissions do not exceed respective CERR threshold levels. As such, emissions data will not be required to be inputted into the National Emissions Inventory (NEI) database.

DOH Annual Emissions Reporting

The Clean Air Branch requests annual emissions reporting from those facilities that have facility wide emissions exceeding the DOH reporting level(s) and for all covered sources. Internal annual emissions reporting will be required because this is a covered source.

Best Available Control Technology (BACT)

This source is not subject to BACT analysis because the potential to emit emissions due to the modifications (300 TPH RAP bin/crusher) are below the significant levels as shown in the table below. BACT analysis is required for new sources or significant modifications to sources that have the potential to emit or increase emissions above significant levels considering any limitations as defined in HAR, Section 11-60.1-1.

<b>BACT</b>		
<b>Pollutant</b>	<b>Potential Emissions (TPY)</b>	<b>Significant Levels (TPY)</b>
CO	0	100
NO <sub>x</sub>	0	40
SO <sub>2</sub>	0	40
PM	8.6	25
PM-10	3.6	15
VOC	0	40

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 emissions exceed major source thresholds when the facility is operated at its maximum capacity continuously for 8,760 hours per year.

**INSIGNIFICANT ACTIVITIES / EXEMPTIONS**

45 ekW Stamford Diesel Engine Generator (serial no. C950572202)

The 45 ekW diesel engine generator is considered insignificant in accordance with HAR 11-60.1-82(f)(2) because the heat input capacity is less than one MMBtu/hr.

Storage Tanks

The following storage tanks are less than 40,000 gallons and are considered insignificant in accordance with HAR 11-60.1-82(f)(1):

1. 8,000 gallon fuel oil storage tank for the drum mixer.
2. 8,000 gallon used oil storage tank for the drum mixer.
3. 8,000 gallon fuel oil storage tank for the diesel engine generator.

**ALTERNATIVE OPERATING SCENERIOS**

Diesel Engine Generator

The permittee may replace the 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 generator from its site (i.e., equipment failure, engine overhaul, or any major equipment problems requiring maintenance for efficient operation).

**AIR POLLUTION CONTROLS**

Drum Mixer

The drum mixer is equipped with a baghouse to control PM emissions.

Lime Feeder

The lime feeder is equipped with a baghouse on the lime storage silo to control PM emissions. The weigh pod, auger and pug mill are enclosed.

Fugitive Emissions

Fugitive emissions due to aggregate processing and unpaved roads will be controlled by water suppression, as necessary.

**PROJECT EMISSIONS**

Emission calculations are attached to this review.

300 TPH RAP Bin/Crusher

Emissions were based on the maximum capacity of the RAP bin/crusher. Emission factors from AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing were used to calculate emissions.

<b>300 TPH RAP Bin/Crusher</b>		
Pollutant	Emissions (TPY) [3,000 hr/yr]	Emissions (TPY) [8,760 hr/yr]
PM	6.48	18.92
PM-10	2.57	7.49
PM-2.5	0.97	2.84

Storage Piles

Emissions were based on emission factors from AP-42 Section 13.2.4 (11/06) - Aggregate Handling and Storage Piles.

<b>Storage Piles</b>		
Pollutant	Emissions (TPY) [3,000 hr/yr]	Emissions (TPY) [8,760 hr/yr]
PM	2.12	6.18
PM-10	1.00	2.92
PM-2.5	0.15	0.44

Current emissions

Total emissions for the current facility, excluding the RAP bin/crusher, are summarized in the table below. Emissions referenced from review no. 0542-02 (August 23, 2006).

<b>Current Emissions (TPY)</b>		
Pollutant	Total [3,000 hr/yr]	Total [8,760 hr/yr]
CO	61.2	178.8
NO <sub>x</sub>	48.0	140.0
SO <sub>2</sub>	33.9	98.8
PM	49.2	141.2
PM-10	21.0	60.3
PM-2.5	20.9	60.3
VOC	22.3	65.1
HAPs	1.1	3.1

Total Emissions

Total facility emissions are summarized in the table below.

<b>Total Facility Emissions and Trigger Levels (TPY)</b>					
Pollutant	Emissions (Limited)	Emissions (No Limits 8,760 hr/yr)	BACT Significant Level	CERR Triggering Level (Type A sources / Type B sources)	DOH Level
CO	61.2	178.8	100	2,500 / 1000	250
NO <sub>x</sub>	48.0	140.0	40	2,500 / 100	25
SO <sub>2</sub>	33.9	98.8	40	2,500 / 100	25
PM	57.8	166.3	25	-	25
PM-10	24.6	70.7	15	250 / 100	25
PM-2.5	22.0	63.6	-	250 / 100	-
VOC	22.3	65.1	40	250 / 100	25
HAPs	1.1	3.1	-	-	5

**AIR QUALITY ASSESSMENT**

An ambient air quality impact assessment (AAQIA) is generally required for new sources or modified sources with emission increases. An ambient air quality assessment is not required for this modification because the RAP bin/crusher emissions are fugitive in nature.

**SIGNIFICANT PERMIT CONDITIONS**

1. The RAP bin/crusher, associated conveyors, and any other affected facility (as defined in 40 CFR §60.670 for hot mix asphalt facilities) are subject to the provisions of 40 CFR Part 60, Subpart A and Subpart OOO.

**CONCLUSION**

Based on the information submitted by Jas. W. Glover, Ltd., it is the determination of the Department of Health that the proposed project will be in compliance with Hawaii Administrative Rules, Chapter 11-60.1, and State and National ambient air quality standards. Recommend issuance of the temporary covered source permit subject to the incorporation of the significant permit conditions, 30-day public comment period, and 45-day Environmental Protection Agency review period.

Mark Saewong  
January 11, 2010