

**PERMIT APPLICATION REVIEW  
TEMPORARY COVERED SOURCE PERMIT NO. 0755-01-CT  
Application for Renewal Temporary Covered Source No. 0755-02**

**Company:** Kalaka Nui Inc.

**Mailing Address:** 91-558 Awakumoku Street  
Kapolei, Hawaii 96707

**Facility:** Mobile Crushing and Screening Plant

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

**Initial Location:** 91-558 Awakumoku Street, Kapolei, Hawaii

**SIC Code:** 1442 (Construction sand and gravel)

**Responsible Official:** Ms. Nowel Dudoit-Alana  
President  
(808) 682-2847

**Plant Manager:** Ms. Nowel Dudoit-Alana  
(808) 682-2847

**PROJECT**

Kalaka Nui Inc., has submitted a renewal for a temporary covered source application to operate a mobile crushing and screening plant for stone processing activities. The equipment will be used to crush rock and other materials for construction purposes.

The equipment consists of one (1) track-mounted 352 TPH Powerscreen Pegson crusher.

The crusher is self-propelled by an integrated diesel engine. The engine will not be subject to the permit since it propels the crusher and is exempt pursuant to HAR §11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

The existing operating limitations of 2,500 hours/year will be removed in this permit renewal of the crushing plant. The existing operating limitation was in place to ensure potential emissions were below the trigger for annual emissions reporting requirements.

**EQUIPMENT DESCRIPTION**

- a. 352 TPH Powerscreen Pegson Mobile Crusher (2011) with screen and recirculating conveyor, Model No. XH320SR, Serial No. PID320SRCOMC55105, with exempt 350 HP diesel engine; and
- b. Various conveyors and water sprays.

## AIR POLLUTION CONTROLS

The crushing plant is 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

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 10, Field Citations

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

Subpart 000 – Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the stone processing and screening plant because the maximum capacity of the plant is greater than one hundred (150) tons/hour, and the plant was manufactured after August 31, 1983.

The 352 TPH Powerscreen Pegson Mobile Crusher (manufacture date of 2011) was manufactured after April 22, 2008. Equipment that commence construction, modification, or reconstruction on or after April 22, 2008, are subject to more stringent fugitive emission opacity limits.

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

BACT/AERR/Major Source Applicability

(a) Pollutant	(b) Emissions <sup>a</sup> , <sup>b, c</sup> Based on 2500 hrs/yr (tons/yr)	(c) Emissions <sup>b, c</sup> , Based on 8,760 hrs/yr (tons/yr)	(d) Net Increase in Emissions (tons/year)	(e) Significant Emission Level (tons/yr)	(f) AERR Trigger Level for Type B Sources (tons/yr)	(g) Major Source Level (tons/yr)	(h) Synthetic Minor (Yes or No)
SO <sub>2</sub>	NA	NA		≥40	≥100	≥100	NA
VOC	NA	NA		NA	≥100	≥100	NA
NO <sub>x</sub>	NA	NA		≥40	≥100	≥100	NA
CO	NA	NA		≥100	≥100	≥100	NA
Lead	NA	NA		≥0.6	≥0.5 (actual)	≥10	NA
PM	1.6	5.8	4.2	≥25	NA	≥100	No
PM <sub>10</sub>	0.6	2.2	1.6	≥15	≥100	≥100	No
PM <sub>2.5</sub>	0.1	0.3	0.2	≥10	≥100	≥100	No
PM <sub>2.5</sub>	of SO <sub>2</sub>	of SO <sub>2</sub>		≥40 of SO <sub>2</sub>	NA	NA	NA
PM <sub>2.5</sub>	of NO <sub>x</sub>	of NO <sub>x</sub>		≥40 of NO <sub>x</sub>	NA	NA	NA
Ozone	of VOC	of VOC		≥40 of VOC	NA	NA	NA
Ozone	of NO <sub>x</sub>	of NO <sub>x</sub>		≥40 of NO <sub>x</sub>	NA	NA	NA
GHG	of CO <sub>2e</sub>	of CO <sub>2e</sub>		≥40,000 of CO <sub>2e</sub>	NA	NA	NA
NH <sub>3</sub>				NA	≥100	NA	NA
Total HAPS				NA	NA	≥25	

<sup>a</sup> Emissions based on the old permit limit of 2500 hours per rolling twelve-month (12-month) period. The limit was removed from the current permit because it is no longer needed. The facility is permitted to operate continuously for 8,760 hours per year.

<sup>b</sup> Includes emissions from rock crushing and screening activities. The screen is integrated on the crusher

<sup>c</sup> Does not include emissions from:

- 1) Diesel engine generator since it is used to propel the crusher and is a nonroad engine and not subject to permitting.
- 2) Fugitive dust sources since this facility does not belong to one of the categories of stationary sources listed in the definition of “major source,” “2” of Hawaii Administrative Rules § 11-60.1-1. As defined in federal regulations, fugitive emissions are those “...which could not reasonable pass through a stack, chimney, vent, or other functionally equivalent opening. Fugitive emissions from this facility consist of emissions from stockpiles (wind erosion, delivery to ground storage), unpaved roads, and screening operations.

<sup>d</sup> Reflects net increase in emissions from rock crushing activities resulting from the removal of the hourly limit from the permit.

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

PSD does not apply. The facility is not a listed source in the definition of “major stationary source” of HAR § 11-60.1-131 and potential emissions from the facility are less than two hundred fifty (250) tons per year, which is the trigger level for a non-listed source.

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 one hundred percent (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

40 CFR Part 51, Subpart A – AERR is not applicable because potential emissions are less than the AERR Trigger levels for type B sources.

CAB In-House Annual Emissions Reporting Applicability

(a) Pollutant	(b) Emissions <sup>a</sup> Based on 8,760 hrs/yr (tons/yr)	(c) CAB In-House Annual Emissions Reporting Trigger Level (tons/yr)
SO <sub>2</sub>		≥25
VOC		≥25
NO <sub>x</sub>		≥25
CO		≥250
PM	25.1	≥25
PM <sub>10</sub>	7.0	≥25
PM <sub>2.5</sub>	0.7	≥25
Total HAPS		≥5

<sup>a</sup> Includes emissions from all activities regulated by the permit including the mobile crusher and screen, and fugitive dust emissions from stockpiles and unpaved roads

CAB In-house Annual Emissions Reporting

See the CAB In-House Annual Emissions Reporting Applicability table. CAB in-house annual emissions reporting is required for 1) all facilities holding a covered source permit; and 2) noncovered source facilities having potential emissions, calculated at the permitted limits, equal to or above the CAB in-house annual emissions reporting trigger levels. This facility is subject to the CAB in-house annual emissions reporting requirements because this facility has a covered source permit.

Best Available Control Technology (BACT)

This facility is not subject to a BACT analysis because potential emissions are less than the Significant emission levels.

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 not a synthetic minor source because potential emissions from the facility operating at its maximum capacity for 8,760 hours per year are less than major source levels for all identified pollutants.

**INSIGNIFICANT ACTIVITIES / EXEMPTIONS**

The mobile crusher is self-propelled by an integrated diesel engine. The engine propelling the mobile crusher and mobile screen are exempt pursuant to HAR §11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

## ALTERNATIVE OPERATING SCENARIOS

### Diesel Engines

None proposed. The mobile crusher diesel engine is exempt (self-propelled).

## PROJECT EMISSIONS

Total facility emissions are summarized in the tables below:

250 TPH Mobile Crushing Plant

Pollutant	Mobile Crusher <sup>a</sup> (tons/yr)	Stockpile Emissions <sup>a</sup> (tons/yr)	Unpaved Road Emissions <sup>a</sup> (tons/yr)	Total Facility Emissions <sup>a</sup> (tons/yr)
CO	NA	NA	NA	NA
NO <sub>x</sub>	NA	NA	NA	NA
SO <sub>2</sub>	NA	NA	NA	NA
PM	5.8	0.4	18.9	25.1
PM-10	2.2	0.2	4.6	7.0
PM-2.5	0.3	0.0	0.4	0.7
VOC	NA	NA	NA	NA
HAPs	NA	NA	NA	NA

<sup>a</sup> Emissions based on unlimited operation at 8,760 hours per year

Mobile Crushing

Pollutant	Emissions <sup>a</sup> (tons/yr)
PM	5.8
PM-10	2.2
PM-2.5	0.3

<sup>a</sup> Emissions based on unlimited operation at 8,760 hours per year.

Stockpile Emissions

Pollutant	Emissions <sup>a</sup> (tons/yr)
PM	0.4
PM-10	0.2
PM-2.5	0.0

<sup>a</sup> Emissions based on the permit limits of 8760 hours per year.

Unpaved Road Emissions

Pollutant	Emissions <sup>a</sup> (tons/yr)
PM	18.9
PM-10	4.6
PM-2.5	0.4

<sup>a</sup> Emissions based on unlimited operation at 8,760 hours per year.

### Greenhouse Gas (GHG) Emissions

There are no GHG emissions because emissions from the crushing and screening plant are fugitive in nature.

### **AIR QUALITY ASSESSMENT**

An ambient air quality impact analysis (AAQIA) is generally required for new or modified sources to demonstrate compliance with State and National ambient air quality standards.

An AAQIA is not required for the exempt nonroad diesel engine on the mobile crushing and screening (track-mounted) plant. Other emissions from the proposed crusher is fugitive in nature and do not require an ambient air quality impact analysis.

### **SIGNIFICANT PERMIT CONDITIONS**

There are significant permit conditions for the Powerscreen mobile crushing plant.

The mobile crusher manufacture date (2011) is after April 22, 2008. Performance testing, reporting and recordkeeping are needed in the permit to meet the requirements of 40 CFR 60, Subpart 000.

#### Fugitive Emission Limits

- a. The permittee shall not cause to be discharged into the atmosphere from any crusher or screen, fugitive emissions which exhibit greater than twelve (12) percent opacity.
- b. The permittee shall not cause to be discharged into the atmosphere from any transfer point on the belt conveyors, screening operation, or from any other affected facility, fugitive emissions which exhibit greater than seven (7) percent opacity.

### **CONCLUSION**

Kalaka Nui Inc. has submitted an application for a proposed 352 TPH mobile crushing plant. Potential emissions reflected in this review are based on 8,760 hours of operation per year.

Recommend renewal of the covered source permit subject to the incorporation of the permit conditions, forty five-day (45-day) Environmental Protection Agency review period and thirty-day (30-day) public comment period.

Howard Chin  
May 2018