

## ADMINISTRATIVE RECORD

Hawaii Trucking and Crushing, LLC

Application for Significant Modification No. 0839-02  
Application for Renewal No. 0839-03

Crushing and Screening Plants

Located At: Various Temporary Sites, State of Hawaii

**Temporary CSP No. 0839-01-CT**

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# **Public Notice**

**REQUEST FOR PUBLIC COMMENTS  
ON DRAFT AIR PERMIT  
REGULATING THE EMISSIONS OF AIR POLLUTANTS**

**(Docket No. 22-CA-PA-02)**

Pursuant to Hawaii Revised Statutes (HRS), Chapter 342B-13 and Hawaii Administrative Rules (HAR), Chapter 11-60.1, the Department of Health, State of Hawaii (DOH), is requesting public comments on the following **DRAFT PERMIT** presently under review for:

**Temporary Covered Source Permit (CSP) No. 0839-01-CT**

Application for Significant Modification No. 0839-02 and Renewal No. 0839-03

Hawaii Trucking and Crushing, LLC

Crushing and Screening Plants

Located At: Various Temporary Sites, State of Hawaii

Initial Location: 1730 Kittyhawk Street, Kapolei, Oahu

The **DRAFT PERMIT** is described as follows:

**Temporary CSP No. 0839-01-CT** will grant conditional approval for the continued operation of a 200 TPH crushing and screening plant. The proposed modification includes the addition of one (1) 200 TPH impact crusher, one (1) 200 TPH screener, and one (1) 176 TPH screener, and the removal of one (1) 80 TPH crusher and 100 TPH screen. Water suppression will be used as necessary to minimize fugitive emissions from crushing operations, screening operations, material transfer points, stockpiles and plant roads. The crushing and screening plant is subject to 40 Code of Federal Regulations Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. This permit, if issued, will supersede Temporary CSP No. 0839-01-CT, issued on November 16, 2017, in its entirety.

The **ADMINISTRATIVE RECORD**, consisting of the **APPLICATION** and non-confidential supporting material from the applicant, the permit review summary, and the **DRAFT PERMIT**, is available for public inspection online at:

<http://health.hawaii.gov/cab/public-notices/> and at the following location during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m.

**Oahu:**

- State of Hawaii  
Clean Air Branch  
2827 Waimano Home Road, #130  
Pearl City, Hawaii 96782

All comments on the draft permit and any request for a public hearing must be in writing, addressed to the Clean Air Branch at the above address on Oahu and must be postmarked or received by **May 12, 2022**.

Any person may request a public hearing by submitting a written request that explains the party's interest and the reasons why a hearing is warranted. The DOH may hold a public hearing if a hearing would aid in DOH's decision. If a public hearing is warranted, a public notice for the hearing will be published at least thirty days in advance of the hearing.

Interested persons may obtain copies of the administrative record or parts thereof at a copying cost of five (5) cents per page. Please send written requests to the Oahu office of the Clean Air Branch listed above or call Mr. Jensen I. Kennedy at the Clean Air Branch office in Pearl City at (808) 586-4200.

Comments on the draft permit should address, but need not be limited to, the permit conditions and the facility's compliance with federal and state air pollution laws, including: (1) the National and State Ambient Air Quality Standards; and (2) HRS, Chapter 342B and HAR, Chapter 11-60.1.

DOH will make a final decision on the permit after considering all comments and will send notice of the final decision to each person who has submitted comments or requested such notice.

Elizabeth A. Char, M.D.  
Director of Health

# Draft Permit

DRAFT

Issue Date

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**  
(xxxx xxxx xxxx xxxx xxxx)

22-xxxE CAB  
File No. 0839

Mr. Stoney Samson  
President  
Hawaii Trucking and Crushing, LLC  
87-161 Manuioi Place  
Waianae, Hawaii 96792

Dear Mr. Samson:

**SUBJECT: Temporary Covered Source Permit (CSP) No. 0839-01-CT  
Application for Significant Modification No. 0839-02 and Permit Renewal  
No. 0839-03  
Hawaii Trucking and Crushing, LLC  
Crushing and Screening Plants  
Located At: Various Temporary Sites, State of Hawaii  
Initial Location: 1730 Kittyhawk Street, Kapolei, Oahu  
Date of Expiration: DATE**

The subject temporary CSP is issued in accordance with Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1. The issuance of this permit is based on the plans, specifications, and information that you submitted as part of your application for a significant modification received on August 8, 2019, and application for renewal received on May 3, 2021. The permit supersedes Temporary CSP No. 0839-01-CT, issued on November 16, 2017, in its entirety.

The temporary CSP is issued subject to the conditions/requirements set forth in the following attachments:

- Attachment I: Standard Conditions
- Attachment II: Special Conditions
- Attachment II – INSIG: Special Conditions – Insignificant Activities
- Attachment III: Annual Fee Requirements
- Attachment IV: Annual Emissions Reporting Requirements

Mr. Stoney Samson  
DATE  
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The following forms are enclosed for your use and submittal as required:

Compliance Certification Form  
Change of Location Request for a Temporary Source  
Annual Emissions Report Form: Crushing and Screening Plants  
Monitoring Report Form: Opacity Exceedances

The following are enclosed for your use in monitoring visible emissions:

Visible Emissions Form Requirements, State of Hawaii  
Visible Emissions Form

This permit: (a) shall not in any manner affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment; and (c) in no manner implies or suggests that the Department of Health, Clean Air Branch (herein after referred to as Department), or its officers, agents, or employees, assumes any liability, directly or indirectly, for any loss due to personal injury or property damage caused by, resulting from or arising out of the design, installation, maintenance, or operation of the equipment.

If you have any questions, please contact Mr. Jensen I. Kennedy of the Clean Air Branch at (808) 586-4200.

Sincerely,

JOANNA L. SETO P.E., CHIEF  
Environmental Management Division

JIK:tkg

Enclosures

**ATTACHMENT I: STANDARD CONDITIONS  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

This permit is granted in accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, and is subject to the following standard conditions:

1. Unless specifically identified, the terms and conditions contained in this permit are consistent with the applicable requirement, including form, on which each term or condition is based.  
  
(Auth.: HAR §11-60.1-90)
2. This permit, or a copy thereof, shall be maintained at or near the source and shall be made available for inspection upon request. The permit shall not be willfully defaced, altered, forged, counterfeited, or falsified.  
  
(Auth.: HAR §11-60.1-6; SIP §11-60-11)<sup>2</sup>
3. This permit is not transferable whether by operation of law or otherwise, from person to person, from place to place, or from one piece of equipment to another without the approval of the Department, except as provided in HAR, Section 11-60.1-91.  
  
(Auth.: HAR §11-60.1-7; SIP §11-60-9)<sup>2</sup>
4. A request for transfer from person to person shall be made on forms furnished by the Department.  
  
(Auth.: HAR §11-60.1-7)
5. In the event of any changes in control or ownership of the facilities to be constructed or modified, this permit shall be binding on all subsequent owners and operators. The permittee shall notify the succeeding owner and operator of the existence of this permit and its conditions by letter, copies of which will be forwarded to the Department and the U.S. Environmental Protection Agency (EPA), Region 9.  
  
(Auth.: HAR §11-60.1-5, §11-60.1-7, §11-60.1-94)
6. The facility covered by this permit shall be constructed and operated in accordance with the application, and any information submitted as part of the application, for the temporary CSP. There shall be no deviation unless additional or revised plans are submitted to and approved by the Department, and the permit is amended to allow such deviation.  
  
(Auth.: HAR §11-60.1-2, §11-60.1-4, §11-60.1-82, §11-60.1-84, §11-60.1-90)



7. This permit (a) does not release the permittee from compliance with other applicable statutes of the State of Hawaii, or with applicable local laws, regulations, or ordinances, and (b) shall not constitute, nor be construed to be an approval of the design of the covered (b) shall not constitute, nor be construed to be an approval of the design of the covered source.

(Auth.: HAR §11-60.1-5, §11-60.1-82)

8. The permittee shall comply with all the terms and conditions of this permit. Any permit noncompliance constitutes a violation of HAR, Chapter 11-60.1, and the Clean Air Act and is grounds for enforcement action; for permit termination, suspension, reopening, or amendment; or for denial of a permit renewal application.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-19, §11-60.1-90)

9. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid.

(Auth.: HAR §11-60.1-90)

10. The permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the terms and conditions of this permit.

(Auth.: HAR §11-60.1-90)

11. This permit may be terminated, suspended, reopened, or amended for cause pursuant to HAR, Sections 11-60.1-10 and 11-60.1-98, and Hawaii Revised Statutes (HRS), Chapter 342B-27, after affording the permittee an opportunity for a hearing in accordance with HRS, Chapter 91.

(Auth.: HAR §11-60.1-3, §11-60.1-10, §11-60.1-90, §11-60.1-98)

12. The filing of a request by the permittee for the termination, suspension, reopening, or amendment of this permit, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(Auth.: HAR §11-60.1-90)

13. This permit does not convey any property rights of any sort, or any exclusive privilege.

(Auth.: HAR §11-60.1-90)

14. The permittee shall notify the Department and U.S. EPA, Region 9, in writing of the following dates:
- a. The **anticipated date of initial start-up** for each emission unit of a new source or significant modification not more than sixty (60) days or less than thirty (30) days prior to such date;
  - b. The **actual date of construction commencement** within fifteen (15) days after such date; and
  - c. The **actual date of start-up** within fifteen (15) days after such date.

(Auth.: HAR §11-60.1-90)

15. The permittee shall furnish, in a timely manner, any information or records requested in writing by the Department to determine whether cause exists for terminating, suspending, reopening, or amending this permit, or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Department copies of records required to be kept by the permittee. For information claimed to be confidential, the Director of Health (Director) may require the permittee to furnish such records not only to the Department but also directly to the U.S. EPA, Region 9, along with a claim of confidentiality.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

16. The permittee shall notify the Department in writing, of the **intent to shut down air pollution control equipment for necessary scheduled maintenance** at least twenty-four (24) hours prior to the planned shutdown. The submittal of this notice shall not be a defense to an enforcement action. The notice shall include the following:
- a. Identification of the specific equipment to be taken out of service, as well as its location and permit number;
  - b. The expected length of time that the air pollution control equipment will be out of service;
  - c. The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period;
  - d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period; and
  - e. The reasons why it would be impossible or impractical to shut down the source operation during the maintenance period.

(Auth.: HAR §11-60.1-15; SIP §11-60-16)<sup>2</sup>

17. **Except for emergencies which result in noncompliance with any technology-based emission limitation in accordance with HAR, Section 11-60.1-16.5, in the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of HAR, Chapter 11-60.1, or this permit,** the permittee shall immediately notify the Department of the malfunction or breakdown, unless the protection of personnel or public health or safety demands immediate attention to the malfunction or breakdown and makes such notification infeasible. In the latter case, the notice shall be provided as soon as practicable. Within five (5) working days of this initial notification, the permittee shall also submit, in writing, the following information:
- a. Identification of each affected emission point and each emission limit exceeded;
  - b. Magnitude of each excess emission;
  - c. Time and duration of each excess emission;
  - d. Identity of the process or control equipment causing the excess emission;
  - e. Cause and nature of each excess emission;
  - f. Description of the steps taken to remedy the situation, prevent a recurrence, limit the excessive emissions, and assure that the malfunction or breakdown does not interfere with the attainment and maintenance of the National Ambient Air Quality Standards and state ambient air quality standards;
  - g. Documentation that the equipment or process was at all times maintained and operated in a manner consistent with good practice for minimizing emissions; and
  - h. A statement that the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

The submittal of these notices shall not be a defense to an enforcement action.

(Auth.: HAR §11-60.1-16; SIP §11-60-16)<sup>2</sup>

18. The permittee may request confidential treatment of any records in accordance with HAR, Section 11-60.1-14.

(Auth.: HAR §11-60.1-14, §11-60.1-90)

19. This permit shall become invalid with respect to the authorized construction if construction is not commenced as follows:

- a. Within eighteen (18) months after the permit takes effect, is discontinued for a period of eighteen (18) months or more, or is not completed within a reasonable time.
- b. For phased construction projects, each phase shall commence construction within eighteen (18) months of the projected and approved commencement dates in the permit. This provision shall be applicable only if the projected and approved commencement dates of each construction phase are defined in Attachment II, Special Conditions, of this permit.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

20. The Department may extend the time periods specified in Standard Condition No. 19 upon a satisfactory showing that an extension is justified. Requests for an extension shall be submitted in writing to the Department.

(Auth.: HAR §11-60.1-9, §11-60.1-90)

21. The permittee shall submit fees in accordance with HAR, Chapter 11-60.1, Subchapter 6.

(Auth.: HAR §11-60.1-90)

22. All certifications shall be in accordance with HAR, Section 11-60.1-4.

(Auth.: HAR §11-60.1-4, HAR §11-60.1-90)

23. The permittee shall allow the Director, the Regional Administrator for the U.S. EPA and/or an authorized representative, upon presentation of credentials or other documents required by law:

- a. To enter the premises where a source is located or emission-related activity is conducted, or where records must be kept under the conditions of this permit and inspect at reasonable times all facilities, equipment, including monitoring and air pollution control equipment, practices, operations, or records covered under the terms and conditions of this permit and request copies of records or copy records required by this permit; and
- b. To sample or monitor at reasonable times substances or parameters to ensure compliance with this permit or applicable requirements of HAR, Chapter 11-60.1.

(Auth.: HAR §11-60.1-11, §11-60.1-90)

24. Within thirty (30) days of **permanent discontinuance of the construction, modification, relocation, or operation of a covered source covered by this permit**, the discontinuance shall be reported in writing to the Department by a responsible official of the source.

(Auth.: HAR §11-60.1-8; SIP §11-60-10)<sup>2</sup>

25. Each permit renewal application shall be submitted to the Department and the U.S. EPA, Region 9, no less than twelve (12) months and no more than eighteen (18) months prior to the permit expiration date. The Director may allow a permit renewal application to be submitted no less than six (6) months prior to the permit expiration date, if the Director determines that there is reasonable justification.

(Auth.: HAR §11-60.1-101; 40 CFR §70.5(a)(1)(iii))<sup>1</sup>

26. The terms and conditions included in this permit, including any provision designed to limit a source's potential to emit, are federally enforceable unless such terms, conditions, or requirements are specifically designated as not federally enforceable.

(Auth.: HAR §11-60.1-93)

27. The compliance plan and compliance certification submittal requirements shall be in accordance with HAR, Sections 11-60.1-85 and 11-60.1-86. As specified in HAR, Section 11-60.1-86, the compliance certification shall be submitted to the Department and the U.S. EPA, Region 9, once per year, or more frequently as set by any applicable requirement.

(Auth.: HAR §11-60.1-90)

28. **Any document (including reports) required to be submitted by this permit shall be certified as being true, accurate, and complete by a responsible official in accordance with HAR, Sections 11-60.1-1 and 11-60.1-4, and shall be mailed to the following address:**

**State of Hawaii  
Clean Air Branch  
2827 Waimano Home Road, #130  
Pearl City, Hawaii 96782**

**Upon request and as required by this permit, all correspondence to the State of Hawaii Department of Health associated with this temporary CSP shall have duplicate copies forwarded to:**

**Manager  
Enforcement Division, Air Section  
U.S. Environment Protection Agency, Reg. 9  
75 Hawthorne Street, ENF-2-1  
San Francisco, CA 94105**

(Auth.: HAR §11-60.1-4, §11-60.1-90)

29. To determine compliance with submittal deadlines for time-sensitive documents, the postmark date of the document shall be used. If the document was hand-delivered, the date received ("stamped") at the Clean Air Branch shall be used to determine the submittal date.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

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<sup>1</sup>The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

<sup>2</sup>The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.

**ATTACHMENT II: SPECIAL CONDITIONS  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

In addition to the standard conditions of the temporary CSP, the following special conditions shall apply to the permitted facility:

**Section A. Equipment Description**

1. This permit encompasses the following equipment and associated appurtenances:
  - a. 200 TPH Rubble Master Model RM80GO! Impact Crusher, Serial No. RM80-00-205;
  - b. 200 TPH Rubble Master Model RM90GO! Impact Crusher, Serial No. RM90-04163 with an attached 200 TPH Rubble Master Model MS95GO Single Deck Screener, Serial No. 04-163;
  - c. 200 TPH Rubble Master Model TS3600 2-Deck Screener, Serial No. TS3600-0024;
  - d. 176 TPH EZ-Screen Model 1200XL 2-Deck Screener, Serial No. CXL2252;
  - e. Various Conveyors; and
  - f. Water Spray System.

(Auth.: HAR §11-60.1-3)

2. An identification tag or name plate shall be displayed on the equipment listed above to show the manufacturer, model no., and serial no., as applicable. The identification tag or name plate shall be permanently attached to the equipment at a conspicuous location.

(Auth.: HAR §11-60.1-5, §11-60.1-90)

**Section B. Applicable Federal Regulations**

1. The crushing and screening plants, except for the 176 TPH EZ-Screen Model 1200XL 2-Deck Screener, is subject to the provisions of the following federal regulations:
  - a. 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources, Subpart A, General Provisions; and
  - b. 40 CFR Part 60, Standards of Performance for New Stationary Sources, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.1, §60.670)<sup>1</sup>

2. The permittee shall comply with all applicable requirements of these standards, including all emission, monitoring, recordkeeping, notification, reporting, and testing requirements. The major requirements of these standards are detailed in the special conditions of this permit.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR Part 60)<sup>1</sup>

**Section C. Operational and Emissions Limitations**

1. Fugitive Emission Limits

- a. 200 TPH Rubble Master RM80GO! Impact Crusher, 200 TPH Rubble Master RM90GO! Impact Crusher with attached 200 TPH Rubble Master MS95GO Single Deck Screener.
  - i. The permittee shall not cause to be discharged into the atmosphere from any crusher, fugitive emissions which exhibit greater than twelve (12) percent opacity.
  - ii. 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.
- b. 200 TPH Rubble Master TS3600 2-Deck Screener
  - i. 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 ten (10) percent opacity.

(Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.672)<sup>1</sup>

2. Fugitive Emission Control

- a. The permittee shall not cause or permit fugitive dust to become airborne without taking reasonable precautions and shall not cause or permit the discharge of visible emissions (VE) of fugitive dust beyond the lot line of the property boundary on which the emissions originate.
- b. The permittee shall take measures to control fugitive dust (e.g., wet suppression, enclosures, dust screens, etc.) at all crushers, screens, material transfer points, stockpiles, plant roads, and throughout the facility. The Department may at any time require the permittee to further abate fugitive dust emissions if an inspection indicates poor or insufficient control.
- c. Water spray systems shall be maintained and utilized, as necessary, during operation of the crushing and screening plants to ensure compliance with the fugitive emission limits. The Department at any time may require continuous operation of the water sprays and/or additional water sprays or manual water spraying at pertinent locations if an inspection indicates that more fugitive dust control is needed.
- d. The crushing and screening plants shall not be operated if observation, or the routine inspection required in Attachment II, Special Condition No. D.3.b, indicates a significant drop in water flow rate and/or water pressure, plugged nozzle(s), leak in the piping system, or other problems which affect the efficiency of the water spray systems. The permittee shall investigate and correct the problem before resuming operations. The normal operating water pressure (psi) and/or flow rate (gal/min) for the water spray systems shall be established during the performance test conducted pursuant to Attachment II, Section F, and may be incorporated into the permit.

- e. The water spray systems shall be properly maintained and kept in good operating condition at all times with scheduled inspections and maintenance as needed to ensure compliance with the fugitive emission limits.
- f. Water sprays and/or a water truck shall be maintained and utilized, as necessary, to minimize fugitive dust from plant operations (e.g., haul roads, stockpiles, material transfer points, etc.).

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-33, §11-60.1-90)

### 3. Maintenance

The crushing and screening plants shall be properly maintained and kept in good operating condition at all times with scheduled inspections and maintenance as recommended by the manufacturer, and as needed.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

### 4. Location Change

- a. The operation of the equipment covered by this temporary CSP shall involve at least one (1) location change during the term of this permit. Moving within a single property is not considered a location change.
- b. Location changes of the equipment shall be in accordance with Attachment II, Section G. For each change in location, the Department reserves the right to impose additional operational controls and restrictions if a site evaluation indicates the controls and/or restrictions are necessary.

(Auth.: HAR §11-60.1-3, §11-60.1-81, §11-60.1-91)

## **Section D. Monitoring and Recordkeeping Requirements**

### 1. Records

All records, including support information, shall be maintained for at least five (5) years from the date of the monitoring sample, measurement, test, report, or application. Support information includes all maintenance, inspection, and repair records, and copies of all reports required by this permit. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department or its representative(s) upon request.



2. Production

The permittee shall maintain records on the total tons of material processed by the crushing and screening plants for purposes of annual emissions reporting.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

3. Water Spray Systems

- a. A water pressure gauge and/or flow meter shall be installed, operated and maintained to measure the pressure and/or flow rate of the water spray systems in psi and/or gallons per minute (gal/min).
- b. The water spray systems, to include the water pump, piping system, spray nozzles, and any gauges (i.e., water pressure, water flow meter, etc.) shall be inspected routinely at least once per month to ensure proper operation of the water spray systems. Inspection of the water spray systems shall be recorded in the Inspection, Maintenance, and Repair Log of Attachment II, Special Condition No. D.6.
- c. The permittee shall initiate corrective action within twenty-four (24) hours and complete corrective action as expediently as practical if the permittee finds that water is not flowing properly during an inspection of the water spray system.
- d. If equipment that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emission other than water sprays during the monthly inspection (e.g., water from recent rainfall), the logbook entry must specify the control mechanism being used instead of the water sprays.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90, §11-60.1-161; 40 CFR §60.674)<sup>1</sup>

4. Visible Emissions

Except in those months when performance tests are conducted for fugitive emissions pursuant to Attachment II, Special Conditions, Section F, the permittee shall conduct **monthly** (calendar month), VE observations for the crushing and screening plants by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9, or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Department. For each month, two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for each emission point subject to an opacity limit. Records shall be completed and maintained in accordance with the *Visible Emissions Form Requirements*. For the VE observations of fugitive emissions, the observer shall comply with the following additional requirements:

- a. The minimum distance between the observer and the emission source shall be 4.57 meters (fifteen (15) feet), but not greater than 402 meters (0.25 miles);

- b. The observer shall, when possible, select a position that minimizes interference from other VE sources. The required observer position relative to the sun (Method 9, Section 2.1) shall be followed; and
- c. The observer shall record the operating capacities (ton/hr) of the plants at the time the observations were made.

The Department may allow observation of a portion of the total fugitive emission points subject to opacity limits, if it can be demonstrated that operations have been in compliance with the permit. At a minimum, at least three (3) fugitive emission points shall be observed each month. The selected points shall include a crusher, a screen, and a transfer point, or those points as specified by the Department. The points observed shall be rotated so that each fugitive emission point is eventually observed. Allowance to observe a portion of the total required fugitive emission points shall be obtained in writing from the Department.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-32, §11-60.1-90; SIP §11-60-24)<sup>2</sup>

#### 5. Performance Tests

Performance tests shall be conducted on the crushing and screening plants pursuant to Attachment II, Section F. Test plans, summaries, and results shall be maintained in accordance with the requirements of this section.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

#### 6. Inspection, Maintenance, and Repair Log

An inspection, maintenance, and repair log shall be maintained for the equipment covered under this permit. Inspection and replacement of parts and repairs shall be well documented. At a minimum, the following records shall be maintained:

- a. The date of the inspection/maintenance/repair work;
- b. A description of the part(s) inspected or repaired;
- c. A description of the findings and any maintenance or repair work performed; and
- d. The name and title of the personnel performing the inspection/work.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)

### **Section E. Notification and Reporting Requirements**

#### 1. Standard Conditions Reporting

Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Condition Nos. 14, 16, 17, and 24, respectively:

- a. Anticipated date of initial start-up, actual date of construction commencement, and actual date of start-up;
- b. Intent to shut down air pollution control equipment for necessary scheduled maintenance;
- c. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and
- d. Permanent discontinuance of construction, modification, relocation, or operation of the facility covered by this permit.

(Auth.: HAR §11-60.1-8, §11-60.1-15, §11-60.1-16, §11-60.1-90; SIP §11-60-10, §11-60-16)<sup>2</sup>

## 2. Deviations

The permittee shall report in writing within **five (5) working days** any deviations from permit requirements, including those attributable to upset conditions, the probable cause of such deviations and any corrective actions or preventive measures taken. Corrective actions may include a requirement for additional source testing, more frequent monitoring, or could trigger implementation of a corrective action plan.

(Auth.: HAR §11-60.1-3, §11-60.1-15, §11-60.1-16, §11-60.1-90)

## 3. Annual Emissions Reports

As required by Attachment IV, Annual Emissions Reporting Requirements, and in conjunction with the requirements of Attachment III, Annual Fee Requirements, the permittee shall report **annually** the total tons per year emitted of each regulated air pollutant, including hazardous air pollutants. The reporting of annual emissions is due within **sixty (60) days** following the end of each calendar year. The following enclosed form shall be used for reporting:

### **Annual Emissions Report Form: Crushing and Screening Plants**

Upon the written request of the permittee, the deadline for reporting of annual emissions may be extended, if the Department determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

## 4. Monitoring Reports

The permittee shall submit **semi-annually** the following reports to the Department. The reports shall be submitted within **sixty (60) days** after the end of each semi-annual calendar period (January 1 - June 30 and July 1 - December 31), and shall be signed and dated by a responsible official. The following enclosed forms shall be used for reporting:

### **Monitoring Report Form: Opacity Exceedances**

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90)

5. Performance Tests

- a. At least **thirty (30) days** prior to conducting a source performance test pursuant to Attachment II, Section F, the permittee shall submit a performance test plan in accordance with Attachment II, Special Condition No. F.4.
- b. Within **sixty (60) days** after completion of a source performance test, the permittee shall submit a test report in accordance with Attachment II, Special Condition No. F.6.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)<sup>1</sup>

6. Compliance Certification

During the permit term, the permittee shall submit at least **annually** to the Department and U.S. EPA, Region 9, the attached **Compliance Certification Form** pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:

- a. The identification of each term or condition of the permit that is the basis of the certification;
- b. The compliance status;
- c. Whether compliance was continuous or intermittent;
- d. The methods used for determining the compliance status of the source currently and over the reporting period;
- e. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
- f. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR Part 64 occurred; and
- g. Any additional information as required by the Department, including information to determine compliance.

The compliance certification shall be submitted within **sixty (60) days** after the end of each calendar year, and shall be signed and dated by a responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department determines that reasonable justification exists for the extension.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

## **Section F. Testing Requirements**

### 1. Performance Testing

- a. Within **sixty (60) days** after achieving the maximum production rate at which the 200 TPH Rubble Master RM90GO! Impact Crusher, 200 TPH Rubble Master MS95GO Screener, and 200 TPH Rubble Master TS3600 Screener will be operated, but not later than **180 days** after initial start-up, and **annually** thereafter, the permittee shall conduct or cause to be conducted performance tests on the crushing and screening plants to determine the opacity of emissions. Tests shall be conducted for each point subject to the opacity limits specified in Attachment II, Special Condition No. C.1.
- b. The permittee shall conduct or cause to be conducted an annual performance test on the 200 TPH Rubble Master RM80GO! Impact Crusher to determine the opacity of emissions. Tests shall be conducted for each point subject to the opacity limits specified in Attachment II, Special Condition No. C.1.
- c. The Department may require testing at other points in the facility or more frequent testing if an inspection indicates poor or insufficient controls.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §60.8, §60.675)<sup>1</sup>

### 2. Performance Test Methods

- a. The performance tests shall be conducted at the maximum expected operating capacities of the crushing and screening plant. Performance tests for the determination of opacity shall be conducted by a certified reader using Method 9 of 40 CFR Part 60, Appendix A-4, and the procedures in 40 CFR §60.11, with the following additions for the fugitive emissions observations:
  - i. The minimum distance between the observer and the emission source shall be 4.57 meters (fifteen (15) feet);
  - ii. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources. The required observer position relative to the sun (Method 9, Section 2.1) shall be followed; and
  - iii. The observer shall record the operating capacities (tons/hr) of the crushing and screening plants at the time the observations were made.
- b. When determining compliance with the fugitive emissions standard of Attachment II, Special Condition No. C.1, the duration of Method 9 observations must be thirty (30) minutes (five (5) six-minute (6-minute) averages). Compliance with the applicable fugitive emission limits specified in Attachment II, Special Condition No. C.1, must be based on the average of the five (5) six-minute (6-minute) averages.
- c. When determining compliance with the fugitive emissions standard of Attachment II, Special Condition No. C.1, if emissions from two (2) or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

- i. Use for the combined emission stream, the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream; or
  - ii. Separate the emissions so that the opacity of emissions from each affected facility can be read.
- d. When determining compliance with the fugitive emissions standard of Attachment II, Special Condition No. C.1, a single visible emission observer may conduct VE observations for up to three (3) fugitive, stack, or vent emission points within a fifteen (15) second interval if the following conditions are met:
- i. No more than three (3) emission points may be read concurrently;
  - ii. All three (3) emission points must be within a seventy (70) degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three (3) points; and
  - iii. If an opacity reading for any one (1) of the three (3) emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two (2) points and continue reading just that single point.
- e. If, after **thirty (30) days** notice for an initially scheduled performance test, there is a delay, for example, due to operational problems, in conducting any rescheduled performance test required by Section F, the permittee shall submit a notice to the Department at least **seven (7) days** prior to any rescheduled performance test.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8, §60.675)<sup>1</sup>

### 3. Performance Test Expense and Monitoring

The performance tests shall be made at the expense of the permittee and the Department may monitor the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

### 4. Performance Test Plan

At least **thirty (30) days** prior to conducting a performance test, the permittee shall submit a written performance test plan to the Department and U.S. EPA, Region 9, that includes date(s) of the test, test duration, test locations, test methods, source operation, locations of VE readings, and other parameters that may affect the test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures. A test plan or quality assurance plan that does not have the approval of the Department may be grounds to invalidate any test and require a retest.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8)<sup>1</sup>

5. Deviations

Any deviations from these conditions, test methods, or procedures may be cause for rejection of the test results unless such deviations are approved by the Department before the tests.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

6. Performance Test Report

Within **sixty (60) days** after completion of a performance test, the permittee shall submit to the Department and U.S. EPA, Region 9, the test report which shall include the operating conditions of the equipment at the time of the test (e.g., operating rate in tons/hr, water meter flow rate in gal/min, etc.), locations where the VE were read, VE readings, location of water sprays, summarized test results, comparative results with the permit emission limits, other pertinent support calculations, and field/laboratory data. The results shall be recorded and reported in accordance with 40 CFR Part 60, Appendix A, and §60.8.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90; 40 CFR §60.8; 40 CFR §60.675; SIP §11-60-15)<sup>1,2</sup>

7. Performance Test Waiver

Upon written request and justification, the Department may waive the requirement for, or a portion of, a specific performance test. The waiver request is to be submitted prior to the required test and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior performance test indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous source test.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

**Section G. Change of Location Requirements**

1. For all location changes, the permittee shall submit the enclosed **Change of Location Request for a Temporary Source** form to the Department for approval **at least thirty (30) days prior to the change in location**, or such lesser time as designated and approved by the Department.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

2. With each change of location request, the permittee shall submit to the Department:

- a. A map of the proposed new temporary location showing the property boundary, fence lines, location of the equipment on the property, and the location of any other air pollution sources owned and operated by the permittee at the new location; and

b. An area map showing the proposed new temporary location.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

3. The applicable filing fee shall be submitted to the Department with each change in location request and made payable to the **Clean Air Special Fund-COV**.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

4. The permittee shall submit any additional information as requested by the Department.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

5. Prior to any relocation, the Department shall approve, conditionally approve, or deny in writing each location change. If the Department denies a location change, the applicant may appeal the decision pursuant to HRS, Chapter 91.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

6. The change of location approval, or a copy thereof, shall be maintained near the source and shall be made available for inspection upon request by the Department.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

7. At each of the authorized locations, the permittee shall operate in accordance with this temporary CSP and all applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-91)

#### **Section H. Agency Notification**

Any document (including reports) required to be submitted by this temporary CSP shall be done in accordance with Attachment I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

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<sup>1</sup>The citations to the Code of Federal Regulations (CFR) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the CFR. Due to the integration of the preconstruction and operating permit requirements, permit conditions may incorporate more stringent requirements than those set forth in the CFR.

<sup>2</sup>The citations to the State Implementation Plan (SIP) identified under a particular condition, indicate that the permit condition complies with the specified provision(s) of the SIP.



**ATTACHMENT II – INSIG  
SPECIAL CONDITIONS – INSIGNIFICANT ACTIVITIES  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date:** DATE

**Expiration Date:** DATE

In addition to the standard conditions of the temporary CSP, the following special conditions shall apply to the permitted facility:

**Section A. Equipment Description**

This attachment encompasses insignificant activities listed in HAR §11-60.1-82(f) and (g) for which provisions of this permit and HAR, Subchapter 2, General Prohibitions apply.

(Auth.: HAR §11-60.1-3)

**Section B. Operational Limitations**

1. The permittee shall take measures to operate applicable insignificant activities in accordance with the provisions of HAR, Subchapter 2 for VE, fugitive dust, incineration, process industries, sulfur oxides from fuel combustion, storage of volatile organic compounds, volatile organic compound water separation, pump and compressor requirements, and waste gas disposal.

(Auth.: HAR §11-60.1-3, §11-60.1-82, §11-60.1-90)

2. The Department may at any time require the permittee to further abate emissions if an inspection indicates poor or insufficient controls.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-82, §11-60.1-90)

**Section C. Monitoring and Recordkeeping Requirements**

1. The Department reserves the right to require monitoring, recordkeeping, or testing of any insignificant activity to determine compliance with the applicable requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

2. All records shall be maintained for at least five (5) years from the date of any required monitoring, recordkeeping, testing, or reporting. These records shall be true, accurate, and maintained in a permanent form suitable for inspection and made available to the Department or its authorized representative upon request.

(Auth.: HAR §11-60.1-3, §11-60.1-11, §11-60.1-90)

#### **Section D. Notification and Reporting**

##### Compliance Certification

During the permit term, the permittee shall submit at least **annually** to the Department and U.S. EPA, Region 9, the attached **Compliance Certification Form** pursuant to HAR, Subsection 11-60.1-86. The permittee shall indicate whether or not compliance is being met with each term or condition of this permit. The compliance certification shall include, at a minimum, the following information:

1. The identification of each term or condition of the permit that is the basis of the certification;
2. The compliance status;
3. Whether compliance was continuous or intermittent;
4. The methods used for determining the compliance status of the source currently and over the reporting period;
5. Any additional information indicating the source's compliance status with any applicable enhanced monitoring and compliance certification, including the requirements of Section 114(a)(3) of the Clean Air Act or any applicable monitoring and analysis provisions of Section 504(b) of the Clean Air Act;
6. Brief description of any deviations including identifying as possible exceptions to compliance any periods during which compliance is required and in which the excursion or exceedances as defined in 40 CFR Part 64 occurred; and
7. Any additional information as required by the Department, including information to determine compliance.

The compliance certification shall be submitted within **sixty (60) days** after the end of each calendar year, and shall be signed and dated by a responsible official.

Upon written request of the permittee, the deadline for submitting the compliance certification may be extended, if the Department determines that reasonable justification exists for the extension.

In lieu of addressing each emission unit as specified in the **Compliance Certification Form**, the permittee may address insignificant activities as a single unit provided compliance is met with all applicable requirements. If compliance is not totally attained, the permittee shall identify the specific insignificant activity and provide the details associated with the noncompliance.

(Auth.: HAR §11-60.1-4, §11-60.1-86, §11-60.1-90)

#### **Section E. Agency Notification**

Any document (including reports) required to be submitted by this temporary CSP shall be done in accordance with Attachment I, Standard Condition No. 28.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

**ATTACHMENT III: ANNUAL FEE REQUIREMENTS  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

The following requirements for the submittal of annual fees are established pursuant to HAR, Title 11, Chapter 60.1, Air Pollution Control. Should HAR, Chapter 60.1, be revised such that the following requirements are in conflict with the provisions of HAR, Chapter 60.1, the permittee shall comply with the provisions of HAR, Chapter 60.1:

1. Annual fees shall be paid in full:
  - a. Within **120 days** after the end of each calendar year; and
  - b. Within **thirty (30) days** after the permanent discontinuance of the covered source.
2. The annual fees shall be determined and submitted in accordance with HAR, Chapter 11-60.1, Subchapter 6.
3. The annual emissions data for which the annual fees are based shall accompany the submittal of any annual fees and be submitted on forms furnished by the Department.
4. The annual fees and the emission data shall be mailed to:

**State of Hawaii  
Clean Air Branch  
2827 Waimano Home Road, #130  
Pearl City, Hawaii 96782**

**ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

In accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department the nature and amounts of emissions.

1. Complete the attached form(s):

**Annual Emissions Report Form: Crushing and Screening Plants**

2. The reporting period shall be from January 1 to December 31 of each year. All reports shall be submitted to the Department within **sixty (60) days** after the end of each calendar year and shall be mailed to the following address:

**State of Hawaii  
Clean Air Branch  
2827 Waimano Home Road, #130  
Pearl City, Hawaii 96782**

3. The permittee shall retain the information submitted, including all emission calculations. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department upon request.
4. Any information submitted to the Department without a request for confidentiality shall be considered public record.
5. In accordance with HAR, Section 11-60.1-14, the permittee may request confidential treatment of specific information, including information concerning secret processes or methods of manufacture, by submitting a written request to the Director and clearly identifying the specific information that is to be accorded confidential treatment.

**COMPLIANCE CERTIFICATION FORM  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
(PAGE 1 OF \_\_\_)**

**Issuance Date: DATE**

**Expiration Date: DATE**

In accordance with the Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the following certification at least annually or more frequently as requested by the Department of Health.

(Make Copies of the Compliance Certification Form for Future Use)

For Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company/Facility Name: \_\_\_\_\_

Responsible Official (Print): \_\_\_\_\_

Title: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

**I certify that I have knowledge of the facts herein set forth, that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the HAR, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.**

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**COMPLIANCE CERTIFICATION FORM  
 TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
 (CONTINUED, PAGE 2 OF \_\_\_)**

**Issuance Date: DATE**

**Expiration Date: DATE**

The purpose of this form is to evaluate whether or not the facility was in compliance with the permit terms and conditions during the covered period. If there were any deviations to the permit terms and conditions during the covered period, the deviation(s) shall be certified as *intermittent compliance* for the particular permit term(s) or condition(s). Deviations include failure to monitor, record, report, or collect the minimum data required by the permit to show compliance. In the absence of any deviation, the particular permit term(s) or condition(s) may be certified as *continuous compliance*.

**Instructions:**

Please certify Sections A, B, and C below for continuous or intermittent compliance. Sections A and B are to be certified as a group of permit conditions. Section C shall be certified individually for each operational and emissions limit condition as listed in the Special Conditions section of the permit (list all applicable equipment for each condition). Any deviations shall also be listed individually and described in Section D. The facility may substitute its own generated form in verbatim for Sections C and D.

**A. Attachment I, Standard Conditions**

|   |  |   |
|---|--|---|
| <u>Permit term/condition</u><br>All standard conditions | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|---|--|---|

**B. Special Conditions - Monitoring, Recordkeeping, Reporting, Testing, and INSIG**

|  |  |   |
|--|--|---|
| <u>Permit term/condition</u><br>All monitoring conditions    | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
| <u>Permit term/condition</u><br>All recordkeeping conditions | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
| <u>Permit term/condition</u><br>All reporting conditions     | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
| <u>Permit term/condition</u><br>All testing conditions       | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
| <u>Permit term/condition</u><br>All INSIG conditions         | <u>Equipment</u><br>All Equipment listed in the permit | <u>Compliance</u><br><input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |

**COMPLIANCE CERTIFICATION FORM**  
**TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**  
**(CONTINUED, PAGE \_\_\_ OF \_\_\_)**

Issuance Date: DATE

Expiration Date: DATE

**C. Special Conditions - Operational and Emissions Limitations**

Each permit term/condition shall be identified in chronological order using attachment and section numbers (e.g., Attachment II, B.1, Attachment IIA, Special Condition No. B.1.f, etc.). Each piece of equipment shall be identified using the description stated in Section A of the Special Conditions (e.g., unit no., model no., serial no., etc.). Check all methods (as required by permit) used to determine the compliance status of the respective permit term/condition.

| <u>Permit term/condition</u> | <u>Equipment</u> | <u>Method</u>   | <u>Compliance</u>  |
|------------------------------|------------------|---|--|
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |
|                              |                  | <input type="checkbox"/> monitoring<br><input type="checkbox"/> recordkeeping<br><input type="checkbox"/> reporting<br><input type="checkbox"/> testing<br><input type="checkbox"/> none of the above | <input type="checkbox"/> Continuous<br><input type="checkbox"/> Intermittent |

**(Make Additional Copies if Needed)**

**COMPLIANCE CERTIFICATION FORM  
 TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
 (CONTINUED, PAGE \_\_\_ OF \_\_\_)**

Issuance Date: DATE

Expiration Date: DATE

**D. Deviations**

| <u>Permit Term/<br/>Condition</u> | <u>Equipment / Brief Summary of Deviation</u> | <u>Deviation Period<br/>time (am/pm) &amp; date<br/>(mo/day/yr)</u> | <u>Date of Written<br/>Deviation<br/>Report to DOH<br/>(mo/day/yr)</u> |
|-----------------------------------|---|---|--|
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |
|                                   |   | Beginning:<br><br>Ending:   |  |

\*Identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred.

**(Make Additional Copies if Needed)**



**CHANGE OF LOCATION REQUEST  
FOR A TEMPORARY SOURCE  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
(PAGE 1 OF 3)**

**Issuance Date:** DATE

**Expiration Date:** DATE

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall provide the following information to the Department of Health:

(Make Copies for Future Use)

1. For all location changes, the permittee shall complete and submit this change of location request form to the Department of Health for approval **at least thirty (30) days prior to the change in location**, or such lesser time as designated and approved by the Department of Health.
2. With each change of location request, the permittee shall submit to the Department of Health:
  - a. A map of the proposed new temporary location showing the property boundary, fence lines, location of the equipment on the property, and the location of any other air pollution sources owned and operated by the permittee at the new location; and
  - b. An area map showing the proposed new temporary location.
3. The permittee shall submit a filing fee with each change in location request. The filing fee shall be made payable to the **Clean Air Special Fund-COV** and is as follows:  
  
Covered Sources  
 \$100.00 for Non-Air Toxic  
 \$300.00 for Air Toxic
4. The permittee shall submit any additional information as requested by the Department of Health.
5. This **Change of Location Request for a Temporary Source** form shall be mailed to the following address:

**State of Hawaii  
Clean Air Branch  
2827 Waimano Home Road, #130  
Pearl City, HI 96782**

- 
1. Prior to any relocation, the Department of Health shall approve, conditionally approve, or deny in writing each location change. If the Department of Health denies a location change, the applicant may appeal the decision pursuant to Hawaii Revised Statutes, Chapter 91.
  2. The change of location approval, or a copy thereof, shall be maintained near the source and shall be made available for inspection upon request by the Department of Health.
  3. At each new authorized location, the permittee shall operate in accordance with the current temporary covered source permit (CSP) and all applicable requirements.

**CHANGE OF LOCATION REQUEST  
FOR A TEMPORARY SOURCE  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
(CONTINUED, PAGE 2 of 3)**

Issuance Date: DATE

Expiration Date: DATE

1. Company Name: \_\_\_\_\_
2. Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_  
Phone Number: \_\_\_\_\_
3. Name of Owner/Owner's Agent: \_\_\_\_\_  
Title: \_\_\_\_\_ Phone Number: \_\_\_\_\_
4. Equipment Description (identify each equipment to be relocated): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Current Location of Equipment: \_\_\_\_\_
6. **New Location Information**
  - a. Street Address: \_\_\_\_\_
  - b. City: \_\_\_\_\_ Zip Code: \_\_\_\_\_ Island: \_\_\_\_\_
  - c. For sites with no street address, provide:  
Description of location: \_\_\_\_\_  
\_\_\_\_\_  
Or, Tax map key: \_\_\_\_\_  
\_\_\_\_\_  
Or, UTM Coordinates: \_\_\_\_\_  
Horizontal Datum: \_\_\_\_\_
  - d. Plant manager/contact: \_\_\_\_\_ Phone Number: \_\_\_\_\_
  - e. Proposed start date at new location: \_\_\_\_\_
  - f. Estimated project duration at new location: \_\_\_\_\_
  - g. Identify any other air pollution sources owned and operated by the permittee at the new location: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**CHANGE OF LOCATION REQUEST  
FOR A TEMPORARY SOURCE  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT  
(CONTINUED, PAGE 3 OF 3)**

Issuance Date: DATE

Expiration Date: DATE

h. Brief description of the work to be performed: \_\_\_\_\_  
\_\_\_\_\_

i. Provide estimated distances to the nearest residence and/or occupied establishments (e.g. schools, businesses, etc.):

| Distance | Identify if residence, school, business, etc. |
|----------|---|
|          |   |
|          |   |
|          |   |
|          |   |

**I certify that I have knowledge of the facts herein set forth, that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that no modifications will be made to the equipment and operational methods will remain similar as permitted under the current temporary CSP at this new location.**

Responsible Official (Print): \_\_\_\_\_ Date: \_\_\_\_\_

Title: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

**ANNUAL EMISSIONS REPORT FORM  
CRUSHING AND SCREENING PLANTS  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

In accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, the permittee shall report to the Department of Health the nature and amounts of emissions:

(Make Copies for Future Use)

For Reporting Period: \_\_\_\_\_ Date: \_\_\_\_\_

Company/Facility Name: \_\_\_\_\_

**I certify that I have knowledge of the facts herein set forth that the same are true, accurate, and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.**

Responsible Official (Print): \_\_\_\_\_

Title: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Responsible Official (Signature): \_\_\_\_\_

1. Report the tons of materials processed and air pollution control measures used for the facility:

| Type of Operation   | Tons of Material Processed | Air Pollution Control Measures in Use | Control Efficiency (% Reduction) |
|---|----------------------------|---------------------------------------|----------------------------------|
| Truck Unloading   |                            |                                       |                                  |
| 200 TPH RM80GO! Crusher   |                            |                                       |                                  |
| 200 TPH RM90GO! Crusher   |                            |                                       |                                  |
| 200 TPH TS3600 RM Screener  |                            |                                       |                                  |
| 176 TPH 1200XL EZ Screener  |                            |                                       |                                  |
| Conveyor Transfer   |                            |                                       |                                  |
| Stockpiles  |                            |                                       |                                  |
| Truck Loading   |                            |                                       |                                  |
| <p>Note: Control measures include water sprays, housing and duct work to baghouses.<br/>           Use the following Control Efficiencies, unless documentation is available to show otherwise:<br/> <i>Baghouses: 99%</i><br/> <i>Water sprays, or Shroud: 70%</i><br/> <i>Subsequent transfer points of water sprayed material: 70-(5*n)%</i><br/>           Efficiency factors may be reduced by the Department of Health, if there are any indications that a source's air pollution control device is not operating at the specified efficiency.</p> |                            |                                       |                                  |



**VISIBLE EMISSIONS FORM REQUIREMENTS  
STATE OF HAWAII  
TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

The ***Visible Emissions (VE) Form*** shall be completed **monthly** (*each calendar month*) for each equipment subject to opacity limits by a certified reader in accordance with 40 Code of Federal Regulations Part 60, Appendix A, Method 9, or U.S. EPA approved equivalent methods, or alternative methods with prior written approval from the Department. The VE Form shall be completed as follows:

1. VE observations shall take place during the day only. The opacity shall be noted in five (5) percent increments (e.g., 25%).
2. Orient the sun within a 140-degree sector to your back. Provide a source layout sketch on the VE Form using the symbols as shown.
3. For VE observations of stacks, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. For VE observations of fugitive emissions from crushing and screening plants, stand at least 4.57 meters (fifteen (15) feet) from the VE source, but not more than a quarter mile from the VE source.
5. Two (2) consecutive six (6) minute observations shall be taken at fifteen (15) second intervals for each stack or emission point.
6. The six (6) minute average opacity reading shall be calculated for each observation.
7. If possible, the observations shall be performed as follows:
  - a. Read from where the line of sight is at right angles to the wind direction.
  - b. The line of sight shall not include more than one (1) plume at a time.
  - c. Read at the point in the plume with the greatest opacity (without condensed water vapor), ideally while the plume is no wider than the stack diameter.
  - d. Read the plume at fifteen (15) second intervals only. Do not read continuously.
  - e. The equipment shall be operating at the maximum permitted capacity.
8. If the equipment was shut-down for that period, briefly explain the reason for shut-down in the comment column.

The permittee shall retain the completed VE Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five (5) years, and made available to the Department, or their representative upon request.

Any required initial and annual performance test performed in accordance with Method 9 by a certified reader shall satisfy the respective equipment's VE monitoring requirements for the month the performance test is performed.

**VISIBLE EMISSIONS FORM  
 TEMPORARY COVERED SOURCE PERMIT NO. 0839-01-CT**

**Issuance Date: DATE**

**Expiration Date: DATE**

(Make Copies for Future Use for Each Stack or Emission Point)

Company Name: \_\_\_\_\_

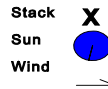
For stacks, describe equipment and fuel: \_\_\_\_\_

For fugitive emissions from crushers and screens, describe:

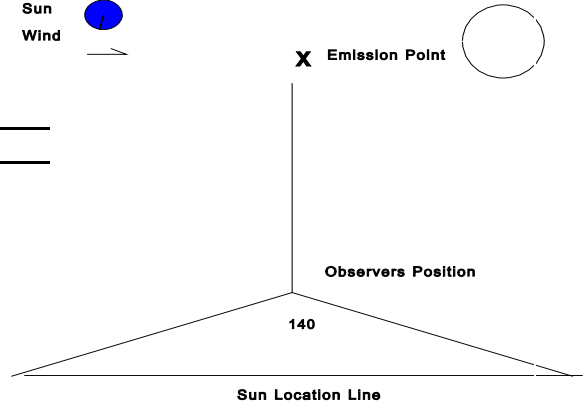
Fugitive emission point: \_\_\_\_\_

Plant Production (tons/hr): \_\_\_\_\_

(During observation)



Draw North Arrow



**Site Conditions:**

Emission point or stack height above ground (ft): \_\_\_\_\_

Emission point or stack distance from observer (ft): \_\_\_\_\_

Emission color (black or white): \_\_\_\_\_

Sky conditions (% cloud cover): \_\_\_\_\_

Wind speed (mph): \_\_\_\_\_

Temperature (EF): \_\_\_\_\_

Observer Name: \_\_\_\_\_

Certified? (Yes/No): \_\_\_\_\_

Observation Date and Start Time: \_\_\_\_\_

| MINUTES                                     | Seconds |    |    |    | COMMENTS |
|---|---------|----|----|----|----------|
|   | 0       | 15 | 30 | 45 |          |
| 1   |         |    |    |    |          |
| 2   |         |    |    |    |          |
| 3   |         |    |    |    |          |
| 4   |         |    |    |    |          |
| 5   |         |    |    |    |          |
| 6   |         |    |    |    |          |
| Six (6) Minute Average Opacity Reading (%): |         |    |    |    |          |

Observation Date and Start Time: \_\_\_\_\_

| MINUTES                                     | Seconds |    |    |    | COMMENTS |
|---|---------|----|----|----|----------|
|   | 0       | 15 | 30 | 45 |          |
| 1   |         |    |    |    |          |
| 2   |         |    |    |    |          |
| 3   |         |    |    |    |          |
| 4   |         |    |    |    |          |
| 5   |         |    |    |    |          |
| 6   |         |    |    |    |          |
| Six (6) Minute Average Opacity Reading (%): |         |    |    |    |          |

# **Draft Review Summary**



**PERMIT APPLICATION REVIEW**  
**TEMPORARY COVERED SOURCE PERMIT (CSP) NO. 0839-01-CT**  
**Application for Permit Significant Modification 0839-02 and Permit Renewal 0839-03**

**Company:** Hawaii Trucking and Crushing, LLC (previous name Samson Trucking, Inc.)

**Mailing Address:** P.O. Box 75246  
Kapolei, Hawaii 96707

**Facility:** Crushing and Screening Plants

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

**Initial Location:** 1730 Kittyhawk Street, Kapolei, Oahu

**SIC Code:** 1442 (Construction Sand and Gravel)

**Responsible Official:** Mr. Stoney Samson  
President  
(808) 864-1666

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

## **PROPOSED PROJECT**

Hawaii Trucking and Crushing, LLC has submitted a permit renewal application to operate portable crushing and screening plants, powered by insignificant and exempt diesel engines. The crushing plant will be used to supply the existing screening plant with source material (recycled asphalt pavement, used or virgin concrete, rocks).

Material is fed into the crusher feeder by a frontend loader or from a conveyor belt. The material travels to the impact crusher and falls onto the product conveyor then to the stockpile.

The screener is used to screen recycled asphalt pavement into different sized aggregates. The facility also has a 176 TPH EZ Screen screener that will be used to screen only soil, and will not be used to screen the materials processed by the crushers.

This review comprises of Hawaii Trucking and Crushing, LLC's application for Modification 0839-02 received on August 8, 2019, August 25, 2020, and application for permit renewal 0839-03 received on May 3, 2021. This temporary CSP, when issued will supersede in its entirety Temporary CSP No. 0839-01-CT issued on November 16, 2017.

**EQUIPMENT DESCRIPTION**

1. Existing self-propelled 200 TPH Rubble Master Model RM80GO!, Impact Crusher, Serial No. RM80-00-205. This crusher was manufactured in 2015;
2. Added self-propelled 200 TPH portable Rubble Master Model RM90GO! Impact Crusher, Serial No. RM90-04163 with an attached 200 TPH Rubble Master Model MS95GO Single Deck Screener Serial No. 04-163. This crusher and Screener were manufactured in 2019;
3. Added self-propelled 200 TPH Rubble Master, 2-Deck Screener, Model TS3600, Serial No. TS3600-0024. Manufactured in February 2008 (RM email 7/21/21);
4. Added a portable 176 TPH EZ-Screen, 2-Deck Screener, Model 1200XL, Serial No. CXL2252. Manufactured in October 2008. The screener will only screen soils, and not the material from the crushers;
5. Various Conveyors; and
6. Water Spray System.

Overview:

| SEQ                                 | QTY | Description<br>Permit No: 0839-01-CT | Power Source | Applicable<br>Fed Code | Applicable? | Reason  | Manufacturer  | Model   | Serial No.  | Mo/Yr Mfct. | Capacity | Unit | Emission Limits (%) |
|-------------------------------------|-----|--------------------------------------|--------------|------------------------|-------------|---------|---------------|---------|-------------|-------------|----------|------|---------------------|
| <b>g Facility Current Equipment</b> |     |                                      |              |                        |             |         |               |         |             |             |          |      |                     |
| 1                                   | 1   | Impact Crusher                       | Table 2      | 000                    | Yes         | Crusher | Rubble Master | RM80GO! | RM80-00-205 | 2015        | 200      | TPH  | 12                  |
| 2                                   | 1   | Impact Crusher                       | Table 2      | 000                    | Yes         | Crusher | Rubble Master | RM90GO! | RM90-04163  | 2019        | 200      | TPH  | 12                  |
| 2a                                  | 1   | Screener attached in the RM90GO!*    |              | 000                    | Yes         | Crusher | Rubble Master | MS95GO  | 06-163      | 2019        | 200      | TPH  | 7                   |
| 3                                   | 1   | Mobile Screener                      | Table 2      | 000                    | Yes         | Crusher | Rubble Master | TS-3600 | TS3600-0024 | 2/08        | 200      | TPH  | 10                  |
| 4                                   | 1   | Mobile Screener                      | Table 2      |                        |             |         | EZ-Screen     | 1200XL  | CXL2252     | 10/08       | 176      | TPH  | N/A                 |
| 5                                   |     | Various Conveyors                    |              |                        |             |         |               |         |             |             |          |      |                     |
| 6                                   |     | Water Spray System                   |              |                        |             |         |               |         |             |             |          |      |                     |

According to a letter dated February 4, 2021, operation of the following equipment has been permanently discontinued and the equipment is being removed from the permit:

1. 80 TPH Compact Crusher by Rubble Master Model No. RM60, Serial No. RM60-0387; and
2. 100 TPH portable screener by Rubble Master, Model No. CS2500, Serial No. 0116.

**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 9, Hazardous Air Pollutant Sources
- Subchapter 10, Field Citations

**AIR POLLUTION CONTROLS**

The RM80GO! Impact crusher is equipped with a dust suppression system, using spray bars with atomizer nozzles that are mounted at the crusher and at the discharge point. When the crushers are operating, the plant area and the stockpile dust is controlled either by water truck, or if available, water from a water hydrant or municipal water supply.

The RM90GO! Impact crusher is equipped with a dust suppression system, using spray bars with atomizer nozzles that are mounted at the crusher and at the discharge point. The crusher has a water tank which is refillable with water from the water truck.

The screeners, the plant area, and the stockpile dust is controlled either by water truck, or if available, water from a water hydrant or municipal water supply

**Air Emissions Reporting Requirement (AERR) – 40 Code of Federal Regulations (CFR) Part 51 Subpart A- AERR** is not applicable because potential emissions are less than the AERR Trigger levels for Type B sources.

**AERR/Major Source Applicability**

| Pollutant         | Emissions <sup>a</sup> Based on 8,760 hrs/yr. (TPY) | AERR Trigger Level for Type B Sources (TPY) | Major Source Level (TPY) |
|-------------------|---|---|--------------------------|
| CO                | 0.00  | ≥100  | ≥100                     |
| NO <sub>x</sub>   | 0.00  | ≥100  | ≥100                     |
| SO <sub>2</sub>   | 0.00  | ≥100  | ≥100                     |
| PM                | 5.41  | NA  | ≥100                     |
| PM <sub>10</sub>  | 2.12  | ≥100  | ≥100                     |
| PM <sub>2.5</sub> | 0.37  | ≥100  | ≥100                     |
| VOC               | 0.00  | ≥100  | ≥100                     |
| Total HAPS        | 0.00  | NA  | ≥25                      |
| Lead              | 0.00  | ≥0.5 (actual)                               | ≥10                      |
| GHG               | 0 of CO <sub>2e</sub>                               | NA  | NA                       |
| PM <sub>2.5</sub> | 0 of SO <sub>2</sub>                                | NA  | NA                       |
| PM <sub>2.5</sub> | 0 of NO <sub>x</sub>                                | NA  | NA                       |
| Ozone             | 0 of VOC  | NA  | NA                       |
| Ozone             | 0 of NO <sub>x</sub>                                | NA  | NA                       |
| NH <sub>3</sub>   | NA  | ≥100  | NA                       |

<sup>a</sup>Does not include emissions from screeners, stockpiles (wind erosion), unpaved road, and conveyors.

**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 source are less than 250 tons per year, which is the trigger level for a non-listed source.

**Best Available Control Technology (BACT)**

This source is not subject to BACT analysis because potentially capturable fugitive dust emissions from this facility are less than the significant emissions levels. Fugitive emissions from this facility consist of emissions from the screeners, stockpiles (wind erosion), unpaved road, and conveyors.

**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 capturable fugitive dust emissions from the facility operating at its maximum capacity for 8,760 hours per year are less than major source levels.

**Standard of Performance for New Stationary Sources (NSPS), 40 CFR Part 60**

**Subpart OOO** – Standards of Performance for Nonmetallic Mineral Processing Plants is applicable to the crushing and screening plant because the maximum capacity of the crushers are greater than 150 tons/hour, and the crushers and screeners were manufactured after August 31, 1983.

The 176 TPH EZ-Screen screener is not subject to Subpart OOO since it only screens soils and does not screen material from the crushers.

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

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

**Compliance Assurance Monitoring (CAM) - 40 CFR Part 64**

This plant 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 (100) percent of the major source level; and
- (5) Not otherwise be exempt from CAM.

**CAB In-House Annual Emission Reporting Applicability**

This facility is subject to the CAB in-house annual emissions reporting requirements because this is a covered source facility.

**EXEMPTIONS/INSIGNIFICANT ACTIVITIES**

The diesel engines powering the crushing and screening plants are exempt (per HAR §11-60.1-62(d)(4)) or insignificant (per HAR §11-60.1-82(f)(2):

1. Exempt 168 kW John Deere diesel engine is propelling the 200TPH RM80GO! crusher.
2. Exempt 194 kW John Deere diesel engine is propelling the 200 TPH RM90GO! crusher.
3. Exempt 56 HP Deutz diesel engine is propelling the RM TS3600 mobile screener.
4. Insignificant 19 HP Deutz diesel engine on the EZ-Screen 1200XL screener.

Overview:

| Table 2: Exempts, Insignificant |    |                                      |                        |                  |             |            |           |               |                |               |      |
|---------------------------------|----|--------------------------------------|------------------------|------------------|-------------|------------|-----------|---------------|----------------|---------------|------|
| SQ                              | QY | Description<br>Permit No: 0839-01-CT | Applicable<br>Fed Code | Appli-<br>cable? | Reason      | Manufactr  | Model     | Serial<br>No. | Mo/Yr<br>Mfct. | Capa-<br>city | Unit |
| 1a                              | 1  | DE for RM80GO! Crusher               | ZZZZ                   | Exempt           | Self Propel | John Deere | 6068HF485 | CD-6068L30003 | 2015           | 168           | kW   |
| 2a                              | 1  | DE for RM90GO! Crusher               | ZZZZ                   | Exempt           | Self Propel | John Deere | 6090CFC09 | RG6090U050248 | 2019           | 194           | kW   |
| 3a                              | 1  | DE for Mobile Screen (TS3600)        | ZZZZ                   | Exempt           | Self Propel | Deutz      | F4L914E   | E1 97/68 GA   | 2008           | 56            | hp   |
| 4a                              | 1  | DE for Mobile Screen (1200XL)        | ZZZZ                   | Insignifcant     | <1MMBtu     | Deutz      | 191       | 5614004       | 10/08          | 19            | hp   |

**ALTERNATIVE OPERATING SCENARIOS**

The applicant did not propose any alternate operating scenarios.

**PROJECT EMISSIONS**

The crushers are considered the only potentially capturable emission source.

| Total Plant Emissions based on 8760 hours/year |                 |                 |                     |          |                                |
|--|-----------------|-----------------|---------------------|----------|--------------------------------|
| Pollutant                                      | Wind<br>Erosion | Unpaved<br>Road | Crusher<br>(Source) | Screener | Total<br>Facility<br>Emissions |
|  | (TPY)           | (TPY)           | (TPY)               | (TPY)    | (TPY)                          |
| CO   | 0.00            | 0.00            | 0.00                | 0.00     | 0.00                           |
| NO <sub>x</sub>                                | 0.00            | 0.00            | 0.00                | 0.00     | 0.00                           |
| SO <sub>2</sub>                                | 0.00            | 0.00            | 0.00                | 0.00     | 0.00                           |
| PM   | 28.92           | 54.18           | 5.41                | 72.60    | 161.11                         |
| PM-10  | 13.68           | 13.25           | 2.12                | 17.79    | 46.84                          |
| PM-2.5   | 2.07            | 1.32            | 0.37                | 10.59    | 14.36                          |
| VOC  | 0.00            | 0.00            | 0.00                | 0.00     | 0.00                           |
| HAPS   | 0.00            | 0.00            | 0.00                | 0.00     | 0.00                           |

### Storage Piles

AP-42, Chapter 13, Section 13.2.4 - Aggregate Handling and Storage Piles (11/06)

Emissions (lb/hr) = Emission Factor (lb/ton) x Processing Capacity (ton/hr)

|                     | Value | Unit      | Notes                                      |
|---------------------|-------|-----------|--|
| Hour Limit          | 8760  | hour/year |  |
| Processing Capacity | 776   | ton/hour  |  |
| k (PM)              | 0.74  | -         | AP-42 Sec. 13.2.4.3                        |
| k (PM-10)           | 0.35  | -         | AP-42 Sec. 13.2.4.3                        |
| k (PM-2.5)          | 0.053 | -         | AP-42 Sec. 13.2.4.3                        |
| U                   | 10.9  | mph       | AP-42 Table 7.1-9 (11/06) (Hawaii average) |
| M                   | 0.7   | %         | AP-42 Table 13.2.4-1 (crushed limestone)   |

### Emission Factors

$$E = k(0.0032)(U/5)^{1.3}/(M/2)^{1.4}, \text{ (lb/ton)}$$

where: E (lb/ton)  
k = particle size multiplier  
U = mean wind speed (mph)  
M = material moisture content (%)

| Pollutant     | E (lb/ton) | Control Efficiency | Emissions (lb/hr) | Emissions (TPY) |              |
|---------------|------------|--------------------|-------------------|-----------------|--------------|
|               |            |                    |                   | N/A             | 8,760 hr/yr  |
| <b>PM</b>     | 2.84E-02   | 70%                | 6.60              |                 | <b>28.92</b> |
| <b>PM-10</b>  | 1.34E-02   | 70%                | 3.12              |                 | <b>13.68</b> |
| <b>PM-2.5</b> | 2.03E-03   | 70%                | 0.47              |                 | <b>2.07</b>  |

notes:

1. 70% control efficiency was assumed for water suppression (AP-42, Chapter 11, Section 11.19.1.2 (11/95))

**Vehicle Travel on Unpaved Roads**

AP-42 Section 13.2.2 (11/06) - Unpaved Roads

Emissions (lb/hr) = Vehicle Miles Traveled (VMT/hr) x Emission Factor (lb/VMT)

**Vehicle Miles Traveled (VMT)**

|                           | Limited | Unlimited | Unit     | Notes                                 |
|---------------------------|---------|-----------|----------|---------------------------------------|
| Hour Limit                | NA      | 8760      | hrs/yr   |                                       |
| Processing Capacity       | 776     | 776       | TPH      | Maximum Capacity of all pollutants    |
| Vehicle Load Capacity     | 22      | 22        | ton      |                                       |
| Travel Distance Roundtrip | 0.25    | 0.25      | mile     |                                       |
| Average VMT/hour          | 8.82    | 8.82      | VMT/hour | Processing Capacity / Load x Distance |
| Total VMT                 | NA      | 77247     | VMT/year | VMT/hour x Hour Limit                 |

**Emission Factors**

For vehicles traveling on unpaved surfaces at industrial sites:

$$EF = k(s/12)^a(W/3)^b$$

where:

EF = size-specific emission factor (lb/VMT)

s = surface material silt content (%)

W = mean vehicle weight (tons)

k,a,b = empirical constants

$$EF_{ext} = EF[(365-P)/365]$$

where:

E<sub>ext</sub> = annual size-specific emission factor extrapolated for natural mitigation (lb/VMT)

P = number of days in a year with at least 0.01 in of precipitation

|   | Value  |       |      | Unit   | Notes  |
|---|--------|-------|------|--------|--|
|   | PM-2.5 | PM-10 | PM   |        |  |
| k | 0.15   | 1.5   | 4.9  | lb/VMT | AP-42 Table 13.2.2-2                                     |
| a | 0.9    | 0.9   | 0.7  | -      | AP-42 Table 13.2.2-2                                     |
| b | 0.45   | 0.45  | 0.45 | -      | AP-42 Table 13.2.2-2                                     |
| s | 3.9    |       |      | %      | AP-42 Sec. 13.2.2 - Related Information                  |
| W | 26.5   |       |      | ton    | avg tare weight=16 ton, gross weight=                    |
| P | 78     |       |      | day    | <a href="http://www.wrcc.dri.edu/">www.wrcc.dri.edu/</a> |

| Pollutant | EF (lb/VMT) | EF <sub>ext</sub> (lb/VMT) | Control Efficiency | Emissions (lb/hr) | Emissions (TPY) |             |
|-----------|-------------|----------------------------|--------------------|-------------------|-----------------|-------------|
|           |             |                            |                    |                   | NA hr/yr        | 8,760 hr/yr |
| PM        | 5.95        | 4.68                       | 70%                | 12.37             | NA              | 54.18       |
| PM-10     | 1.45        | 1.14                       | 70%                | 3.02              | NA              | 13.25       |
| PM-2.5    | 0.15        | 0.11                       | 70%                | 0.30              | NA              | 1.32        |

notes:

1. 70% control efficiency was assumed for water suppression (AP-42 Sec. 11.19.1.2 (11/95))

**200 TPH Impact Crusher RM80GO!**

AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing  
 Emissions (lb/hr) = Processing Capacity (ton/hr) x Emission Factor (lb/ton)

| 200 TPH Impact Crusher RM80GO!  | Limited | Unlimited | Unit  | S/N: RM80-00-205            |
|---------------------------------|---------|-----------|-------|-----------------------------|
| Hour Limit                      | NA      | 8760      | hr/yr |                             |
| Processing Capacity             | NA      | 200       | TPH   |                             |
| Control Effncy (water suppress) | NA      | 70        | %     | AP-42 Sec 11.19.1.2 (11/95) |
| Conveyor Transfer Points        | NA      | 4         | -     |                             |

| 200 TPH Impact Crusher RM80GO! | Capacity<br>(ton/hour) | EF<br>(lb/ton) | Fines    | Emissions<br>(lb/hr) | Emissions (TPY) |      |
|--------------------------------|------------------------|----------------|----------|----------------------|-----------------|------|
| *70%(Uctrl)                    |                        |                | NA hr/yr |                      | 8,760 hr/yr     |      |
| <b>PM</b>                      |                        |                |          |                      |                 |      |
| Truck Unloading                | 200                    | 3.14E-05       |          | 0.01                 | NA              | 0.03 |
| 200 TPH Impact Crusher RM80GO! | 200                    | 1.20E-03       |          | 0.24                 | NA              | 1.05 |
| Conveyor Transfer Points       | 200                    | 1.40E-04       |          | 0.11                 | NA              | 0.49 |
| Truck Loading                  | 200                    | 1.96E-04       |          | 0.04                 | NA              | 0.17 |
| <b>Total PM</b>                |                        |                |          | 0.36                 | NA              | 1.74 |

| 200 TPH Impact Crusher RM80GO! | Capacity<br>(ton/hour) | EF<br>(lb/ton) | C.Effncy    | Emissions<br>(lb/hr) | Emissions (TPY) |             |
|--------------------------------|------------------------|----------------|-------------|----------------------|-----------------|-------------|
| PM <sub>10</sub>               |                        |                | *70%(Uctrl) |                      | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                    | 1.60E-05       |             | 0.00                 | NA              | 0.01        |
| 200 TPH Impact Crusher RM80GO! | 200                    | 5.40E-04       |             | 0.11                 | NA              | 0.47        |
| Conveyor Transfer Points       | 200                    | 4.60E-05       |             | 0.04                 | NA              | 0.16        |
| Truck Loading                  | 200                    | 1.00E-04       |             | 0.02                 | NA              | 0.09        |
| <b>Total PM<sub>10</sub></b>   |                        |                |             | 0.17                 | NA              | 0.74        |

| 200 TPH Impact Crusher RM80GO! | Capacity<br>(ton/hour) | EF<br>(lb/ton) | C.Effncy    | Emissions<br>(lb/hr) | Emissions (TPY) |             |
|--------------------------------|------------------------|----------------|-------------|----------------------|-----------------|-------------|
| PM <sub>2.5</sub>              |                        |                | *70%(Uctrl) |                      | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                    | 4.71E-06       |             | 0.00                 | NA              | 0.00        |
| 200 TPH Impact Crusher RM80GO! | 200                    | 1.00E-04       |             | 0.02                 | NA              | 0.09        |
| Conveyor Transfer Points       | 200                    | 1.30E-05       |             | 0.01                 | NA              | 0.05        |
| Truck Loading                  | 200                    | 2.94E-05       |             | 0.01                 | NA              | 0.03        |
| <b>Total PM<sub>2.5</sub></b>  |                        |                |             | 0.04                 | 0.00            | 0.16        |

notes:

1. EFs (controlled) from AP-42 Table 11.19.2-2
2. Assume PM-10 = 51% of PM and PM-2.5 = 15% of PM when no data available (AP-42 Appendix B.2 (1/95))



**200 TPH Impact Crusher RM90GO!**

AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing  
 Emissions (lb/hr) = Processing Capacity (ton/hr) x Emission Factor (lb/ton)

| 200 TPH Impact Crusher RM90GO!  | Limited | Unlimited | Unit  | S/N. RG6090U50248           |
|---------------------------------|---------|-----------|-------|-----------------------------|
| Hour Limit                      | NA      | 8760      | hr/yr |                             |
| Processing Capacity             | NA      | 200       | TPH   |                             |
| Control Effncy (water suppress) | NA      | 70        | %     | AP-42 Sec 11.19.1.2 (11/95) |
| Conveyor Transfer Points        | NA      | 4         | -     |                             |

| 200 TPH Impact Crusher RM90GO! | Capacity (ton/hour) | EF (lb/ton) | Fines *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|-------------------|-------------------|-----------------|-------------|
| PM                             |                     |             |                   |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 3.14E-05    |                   | 0.01              | NA              | 0.03        |
| 200 TPH Impact Crusher RM90GO! | 200                 | 1.20E-03    |                   | 0.24              | NA              | 1.05        |
| Screening                      | 200                 | 2.20E-03    |                   | 0.44              | NA              | 1.93        |
| Conveyor Transfer Points       | 200                 | 1.40E-04    |                   | 0.11              | NA              | 0.49        |
| Truck Loading                  | 200                 | 1.96E-04    |                   | 0.04              | NA              | 0.17        |
| <b>Total PM</b>                |                     |             |                   | 0.80              | NA              | 3.67        |

| 200 TPH Impact Crusher RM90GO! | Capacity (ton/hour) | EF (lb/ton) | C.Effncy *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|----------------------|-------------------|-----------------|-------------|
| PM <sub>10</sub>               |                     |             |                      |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 1.60E-05    |                      | 0.00              | NA              | 0.01        |
| 200 TPH Impact Crusher RM90GO! | 200                 | 5.40E-04    |                      | 0.11              | NA              | 0.47        |
| Screening                      | 200                 | 7.40E-04    |                      | 0.15              | NA              | 0.65        |
| Conveyor Transfer Points       | 200                 | 4.60E-05    |                      | 0.04              | NA              | 0.16        |
| Truck Loading                  | 200                 | 1.00E-04    |                      | 0.02              | NA              | 0.09        |
| <b>Total PM<sub>10</sub></b>   |                     |             |                      | 0.32              | NA              | 1.38        |

| 200 TPH Impact Crusher RM90GO! | Capacity (ton/hour) | EF (lb/ton) | C.Effncy *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|----------------------|-------------------|-----------------|-------------|
| PM <sub>2.5</sub>              |                     |             |                      |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 4.71E-06    |                      | 0.00              | NA              | 0.00        |
| 200 TPH Impact Crusher RM90GO! | 200                 | 1.00E-04    |                      | 0.02              | NA              | 0.09        |
| Screening                      | 200                 | 5.00E-05    |                      | 0.01              | NA              | 0.04        |
| Conveyor Transfer Points       | 200                 | 1.30E-05    |                      | 0.01              | NA              | 0.05        |
| Truck Loading                  | 200                 | 2.94E-05    |                      | 0.01              | NA              | 0.03        |
| <b>Total PM<sub>2.5</sub></b>  |                     |             |                      | 0.05              | 0.00            | 0.21        |

notes:

1. EFs (controlled) from AP-42 Table 11.19.2-2
2. Assume PM-10 = 51% of PM and PM-2.5 = 15% of PM when no data available (AP-42 Appendix B.2 (1/95))

**200 TPH RM TS3600 2Dk Screener**

AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing  
 Emissions (lb/hr) = Processing Capacity (ton/hr) x Emission Factor (lb/ton)

| 200 TPH RM TS3600 2Dk Screener   | Limited | Unlimited | Unit                        | S/N:TS3600-0024 | Fines Control Eff. Factor |      |
|--|---------|-----------|-----------------------------|-----------------|---------------------------|------|
| Hour Limit   | NA      | 8760      | hr/yr                       |                 | 0%                        | 1.00 |
| Processing Capacity  | NA      | 200       | TPH                         |                 | 65%                       | 0.35 |
| Control Effncy (water suppress)  |         |           | AP-42 Sec 11.19.1.2 (11/95) |                 | 70%                       | 0.30 |
| Conveyor Transfer Points   | NA      | 4         |                             |                 | 80%                       | 0.20 |
| AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing. Emissions (lb/hr) = Process. Capacity (ton/hr) x Emiss.Factor (lb/ton). |         |           |                             |                 | 99%                       | 0.01 |

| 200 TPH RM TS3600 2Dk Screener | Capacity (ton/hour) | EF (lb/ton) | Fines *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|-------------------|-------------------|-----------------|-------------|
| PM                             |                     |             |                   |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 3.14E-05    |                   | 0.01              | NA              | 0.03        |
| Screening                      | 200                 | 2.20E-03    |                   | 0.44              | NA              | 1.93        |
| Conveyor Transfer Points       | 200                 | 1.40E-04    |                   | 0.11              | NA              | 0.49        |
| Truck Loading                  | 200                 | 1.96E-04    |                   | 0.04              | NA              | 0.17        |
| <b>Total PM</b>                |                     |             |                   |                   | NA              | <b>2.62</b> |

| 200 TPH RM TS3600 2Dk Screener | Capacity (ton/hour) | EF (lb/ton) | C.Effncy *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|----------------------|-------------------|-----------------|-------------|
| PM <sub>10</sub>               |                     |             |                      |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 1.60E-05    |                      | 0.00              | NA              | 0.01        |
| Screening                      | 200                 | 7.40E-04    |                      | 0.15              | NA              | 0.65        |
| Conveyor Transfer Points       | 200                 | 4.60E-05    |                      | 0.04              | NA              | 0.16        |
| Truck Loading                  | 200                 | 1.00E-04    |                      | 0.02              | NA              | 0.09        |
| <b>Total PM<sub>10</sub></b>   |                     |             |                      |                   | NA              | <b>0.91</b> |

| 200 TPH RM TS3600 2Dk Screener | Capacity (ton/hour) | EF (lb/ton) | C.Effncy *70%(Uctrl) | Emissions (lb/hr) | Emissions (TPY) |             |
|--------------------------------|---------------------|-------------|----------------------|-------------------|-----------------|-------------|
| PM <sub>2.5</sub>              |                     |             |                      |                   | NA hr/yr        | 8,760 hr/yr |
| Truck Unloading                | 200                 | 4.71E-06    |                      | 0.00              | NA              | 0.00        |
| Screening                      | 200                 | 5.00E-05    |                      | 0.01              | NA              | 0.04        |
| Conveyor Transfer Points       | 200                 | 1.30E-05    |                      | 0.01              | NA              | 0.05        |
| Truck Loading                  | 200                 | 2.94E-05    |                      | 0.01              | NA              | 0.03        |
| <b>Total PM<sub>2.5</sub></b>  |                     |             |                      |                   | NA              | <b>0.12</b> |

notes:

1. EFs (controlled) from AP-42 Table 11.19.2-2
2. Assume PM-10 = 51% of PM and PM-2.5 = 15% of PM when no data available (AP-42 Appendix B.2 (1/95))

**176 TPH EZ-Screen 1200XL Screener**

AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing

Emissions (lb/hr) = Processing Capacity (ton/hr) x Emission Factor (lb/ton)

| 176 TPH EZ-Screen 1200XL Screener   | Limited | Unlimited | Unit  | S/N:<br>CXL 2252 | Fines Control<br>Eff. Factor |
|---|---------|-----------|-------|------------------|------------------------------|
| Hour Limit  | NA      | 8760      | hr/yr |                  | 0%                           |
| Processing Capacity   | NA      | 176       | TPH   |                  | 65%                          |
| Control Effncy (water suppress)   | NA      | 70        | %     |                  | 70%                          |
| Conveyor Transfer Points  | NA      | 4         |       |                  | 80%                          |
| AP-42 Section 11.19.2 (8/04) - Crushed Stone Processing and Pulverized Mineral Processing.<br>Emissions (lb/hr) = Process. Capacity (ton/hr) x Emiss.Factor (lb/ton). |         |           |       |                  | 99%                          |

| 176 TPH EZ-Screen 1200XL Screener | Capacity<br>(ton/hour) | EF<br>(lb/ton) | Control<br>Effcncy | Emissions<br>(lb/hr) | Emissions (TPY) |              |
|-----------------------------------|------------------------|----------------|--------------------|----------------------|-----------------|--------------|
| PM                                |                        |                |                    |                      | NA hr/yr        | 8,760 hr/yr  |
| Truck Unloading                   | 176                    | 3.14E-05       |                    | 0.01                 | NA              | 0.02         |
| Fine Screening                    | 176                    | 3.00E-01       | 70%                | 15.84                | NA              | 69.38        |
| Conveyor Transfer Points          | 176                    | 1.40E-04       |                    | 0.10                 | NA              | 0.43         |
| Truck Loading                     | 176                    | 1.96E-04       |                    | 0.03                 | NA              | 0.15         |
| <b>Total PM</b>                   |                        |                |                    |                      | NA              | <b>69.99</b> |

| 176 TPH EZ-Screen 1200XL Screener | Capacity<br>(ton/hour) | EF<br>(lb/ton) | Control<br>Effcncy | Emissions<br>(lb/hr) | Emissions (TPY) |              |
|-----------------------------------|------------------------|----------------|--------------------|----------------------|-----------------|--------------|
| PM <sub>10</sub>                  |                        |                |                    |                      | NA hr/yr        | 8,760 hr/yr  |
| Truck Unloading                   | 176                    | 1.60E-05       |                    | 0.00                 | NA              | 0.01         |
| Fine Screening                    | 176                    | 7.20E-02       | 70%                | 3.80                 | NA              | 16.65        |
| Conveyor Transfer Points          | 176                    | 4.60E-05       |                    | 0.03                 | NA              | 0.14         |
| Truck Loading                     | 176                    | 1.00E-04       |                    | 0.02                 | NA              | 0.08         |
| <b>Total PM<sub>10</sub></b>      |                        |                |                    |                      | NA              | <b>16.88</b> |

| 176 TPH EZ-Screen 1200XL Screener | Capacity<br>(ton/hour) | EF<br>(lb/ton) | Control<br>Effcncy | Emissions<br>(lb/hr) | Emissions (TPY) |              |
|-----------------------------------|------------------------|----------------|--------------------|----------------------|-----------------|--------------|
| PM <sub>2.5</sub>                 |                        |                |                    |                      | NA hr/yr        | 8,760 hr/yr  |
| Truck Unloading                   | 176                    | 4.71E-06       |                    | 0.00                 | NA              | 0.00         |
| Fine Screening                    | 176                    | 4.50E-02       | 70%                | 2.38                 | NA              | 10.41        |
| Conveyor Transfer Points          | 176                    | 1.30E-05       |                    | 0.01                 | NA              | 0.04         |
| Truck Loading                     | 176                    | 2.94E-05       |                    | 0.01                 | NA              | 0.02         |
| <b>Total PM<sub>2.5</sub></b>     |                        |                |                    |                      | NA              | <b>10.47</b> |

notes:

1. EFs (controlled) from AP-42 Table 11.19.2-2
2. Assume PM-10 = 51% of PM and PM-2.5 = 15% of PM when no data available (AP-42 Appendix B.2 (1/95))

| Emissions based on 8760 hours/year |             |                 |                 |       |                  |                   |      |      |
|------------------------------------|-------------|-----------------|-----------------|-------|------------------|-------------------|------|------|
| Fugitives                          | CO          | NO <sub>x</sub> | SO <sub>2</sub> | PM    | PM <sub>10</sub> | PM <sub>2.5</sub> | VOC  | HAPs |
|                                    | (tons/year) |                 |                 |       |                  |                   |      |      |
| Storage Piles                      | 0.00        | 0.00            | 0.00            | 28.92 | 13.68            | 2.07              | 0.00 | 0.00 |
| Vehicle Travel on Unpaved Roads    | 0.00        | 0.00            | 0.00            | 54.18 | 13.25            | 1.32              | 0.00 | 0.00 |

| Crushers (Source) Emissions based on 8760 hours/year |             |                 |                 |             |                  |                   |             |             |
|--|-------------|-----------------|-----------------|-------------|------------------|-------------------|-------------|-------------|
| Crushers<br>(Source)                                 | CO          | NO <sub>x</sub> | SO <sub>2</sub> | PM          | PM <sub>10</sub> | PM <sub>2.5</sub> | VOC         | HAPs        |
|  | (tons/year) |                 |                 |             |                  |                   |             |             |
| 200 TPH Impact Crusher RM80GO!                       | 0.00        | 0.00            | 0.00            | 1.74        | 0.74             | 0.16              | 0.00        | 0.00        |
| 200 TPH Impact Crusher RM90GO!                       | 0.00        | 0.00            | 0.00            | 3.67        | 1.38             | 0.21              | 0.00        | 0.00        |
| <b>Total Crushers Source Emissions</b>               | <b>0.00</b> | <b>0.00</b>     | <b>0.00</b>     | <b>5.41</b> | <b>2.12</b>      | <b>0.37</b>       | <b>0.00</b> | <b>0.00</b> |

| Screener(s) (Fugitives) Emissions based on 8760 hours/year |             |                 |                 |              |                  |                   |             |             |
|--|-------------|-----------------|-----------------|--------------|------------------|-------------------|-------------|-------------|
| Screener(s)<br>(Fugitives)                                 | CO          | NO <sub>x</sub> | SO <sub>2</sub> | PM           | PM <sub>10</sub> | PM <sub>2.5</sub> | VOC         | HAPs        |
|  | (tons/year) |                 |                 |              |                  |                   |             |             |
| 200 TPH RM TS3600 2Dk Screener                             | 0.00        | 0.00            | 0.00            | 2.62         | 0.91             | 0.12              | 0.00        | 0.00        |
| 176 TPH EZ-Screen 1200XL Screener                          | 0.00        | 0.00            | 0.00            | 69.99        | 16.88            | 10.47             | 0.00        | 0.00        |
| <b>Total Screeners Emissions</b>                           | <b>0.00</b> | <b>0.00</b>     | <b>0.00</b>     | <b>72.61</b> | <b>17.79</b>     | <b>10.59</b>      | <b>0.00</b> | <b>0.00</b> |

## AIR QUALITY ASSESSMENT

An ambient air quality impact analysis is not required for the proposed crushing and screening plant 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

1. The crusher, screener, and associated conveyors are subject Title 40 CFR Part 60 - Standards of Performance for New Stationary Sources, Subpart A and Subpart OOO.
2. Fugitive Emission Limits:
  - a. 200 TPH Rubble Master RM80GO! Impact Crusher, 200 TPH Rubble Master RM90GO! Impact Crusher with attached 200 TPH Rubble Master MS95GO Single Deck Screener
    - i. The permittee shall not cause to be discharged into the atmosphere from any crusher, fugitive emissions which exhibit greater than twelve (12) percent opacity.

- ii. 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.
- b. 200 TPH Rubble Master TS3600 2-Deck Screener
  - i. 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 ten (10) percent opacity.
- 3. The crushing and screening plants are equipped with water spray system to control fugitive emissions from crushing and screening operations. The water spray system shall be utilized as necessary while the plant is in operation.

## **CONCLUSION**

Hawaii Trucking and Crushing, LLC has submitted a permit renewal application to continue operations of a portable crushing and screening plants. Potential emissions are based on the maximum rated capacities of the equipment. Recommend issuance of the temporary CSP subject to the incorporation of the significant permit conditions, thirty (30) day public comment period, and forty-five (45) day Environmental Protection Agency review.

Jensen I. Kennedy  
21 March 2022

**Application  
and  
Supporting Information**

## Kennedy, Jensen

---

**From:** Rik Peterson <rpeterson@ez-screen.com>  
**Sent:** Tuesday, July 20, 2021 03:10 AM  
**To:** Kennedy, Jensen  
**Cc:** Mark Fellows; Shannon Doeblor; Al Skoropa  
**Subject:** [EXTERNAL] RE: [EZ-SCREEN WEBSITE] - Parts/Support Request

Jensen,

The manufacturing date was October of 2008. Sold Date 11/7/2008

Thank you,

Rik Peterson  
EZ-Screen  
Office: 248-745-5828  
Fax: 248-745-5825  
[www.ez-screen.com](http://www.ez-screen.com)



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**From:** Kennedy, Jensen <jensen.kennedy@doh.hawaii.gov>  
**Sent:** Monday, July 19, 2021 2:07 PM  
**To:** Rik Peterson <rpeterson@ez-screen.com>  
**Subject:** Re: [EZ-SCREEN WEBSITE] - Parts/Support Request

Hello Rik,

Thank you for your kind information ont he sold date, do you have the manufacturing date too please?

Thank you  
Jensen

---

**From:** Rik Peterson <rpeterson@ez-screen.com>  
**Sent:** Monday, July 19, 2021 2:40 AM  
**To:** Kennedy, Jensen <jensen.kennedy@doh.hawaii.gov>  
**Cc:** Mark Fellows <mark@ez-screen.com>; Shannon Doeblor <Shannon@ez-screen.com>; Al Skoropa <al@ez-

[screen.com](http://screen.com)>

**Subject:** [EXTERNAL] FW: [EZ-SCREEN WEBSITE] - Parts/Support Request

Sold 11/07/2008

Thank you,

Rik Peterson  
EZ-Screen  
Office: 248-745-5828  
Fax: 248-745-5825  
[www.ez-screen.com](http://www.ez-screen.com)



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**From:** [inquiry@ez-screen.com](mailto:inquiry@ez-screen.com) <[inquiry@ez-screen.com](mailto:inquiry@ez-screen.com)>

**Sent:** Saturday, July 17, 2021 4:47 AM

**To:** Al Skoropa <[al@ez-screen.com](mailto:al@ez-screen.com)>; Shannon Doeblen <[Shannon@ez-screen.com](mailto:Shannon@ez-screen.com)>; Rik Peterson <[rpeterson@ez-screen.com](mailto:rpeterson@ez-screen.com)>

**Subject:** [EZ-SCREEN WEBSITE] - Parts/Support Request

**Name:**

Jensen Kennedy

**Callback number:**

808 586 4220

**How can we help you?**

We are trying to determine the manufacturing date for an 176 TPH EZ\_Screen Screener Model 1200 XL with the serial no. CXL2252 for an applicant who is currently applying for a permit to operate the unit. Could you please help us?

thank you kindly,

Jensen Kennedy  
Permit Engineer  
Clean Air Branch, DOH  
Pearl City, Oahu, Hawaii.  
(808) 586-4220.

**Company:**

DOH, Clean Air Branch, Hawaii

**Email:**

[jensen.kennedy@doh.hawaii.gov](mailto:jensen.kennedy@doh.hawaii.gov)

**Machine Model:**



## Kennedy, Jensen

---

**From:** Lear Tyler <Tyler.Lear@rubblemaster.com>  
**Sent:** Wednesday, July 21, 2021 2:58 AM  
**To:** Kennedy, Jensen  
**Subject:** [EXTERNAL] Rubble Master Inquiry

Jensen,

The TS3600-0024 was built in 02/2008

If there is anything else you need from us please don't hesitate to reach out.

Best,

**Tyler Lear**  
Inside Sales and Marketing Manager

Cell: (469) 553-9976  
Toll-Free: (800) 230-0418  
tyler.lear@rubblemaster.com

**Attention!! We have moved our office. Please update our address.**

**RUBBLE MASTER Americas Corp**  
2101 N Kaufman St, Ennis, TX 75119

[www.rubblemaster.com](http://www.rubblemaster.com)



**RM**<sup>®</sup>  
GROUP



#keepcrushing  
@RubbleMaster

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*JS* **HAND DELIVERED**  
**MAY - 3 2021**

**J. W. MORROW**

Environmental Management  
Consultant

April 30, 2021

Ms. Marianne Rossio, P.E.  
Manager, Clean Air Branch  
Department of Health  
Hale Ola Building, Room 130  
2827 Waimano Home Road  
Pearl City, Hawaii 96782

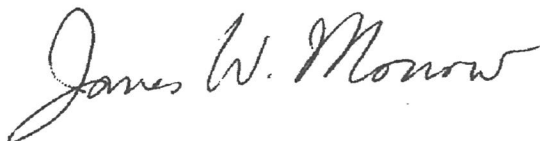
Dear Ms. Rossio:

Subject: Application for a Covered Source Permit Renewal  
CSP 0839-01-CT  
Hawaii Trucking & Crushing, LLC

I have enclosed the subject permit application for your review and action.

Please contact me at 942-9096 if you or your staff have any questions or comments concerning this application.

Sincerely,



James W. Morrow, DrPH

JWM:jm  
210430

Enclosures

cf: Hawaii Trucking & Crushing, LLC

*SERVING HAWAII AND THE PACIFIC SINCE 1974*

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1481 South King Street, Suite 548, Honolulu, Hawaii 96814  
Telephone: (808) 942-9096 E-mail: jwmorrow@att.net

**APPLICATION FOR A COVERED SOURCE  
PERMIT RENEWAL**

***CSP 0839-01-CT***  
***Stone Crushing and Screening Plants***

**SUBMITTED TO:**

**State of Hawaii  
Department of Health  
Clean Air Branch**

**SUBMITTED BY:**

**Hawaii Trucking & Crushing, LLC  
P.O. Box 75246  
Kapolei, HI 96707**

**April 2021**

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**FORM S-1**

## S-1: Standard Air Pollution Control Permit Application Form

(Covered Source Permit and Noncovered Source Permit)

State of Hawaii  
Department of Health  
Environmental Management Division  
Clean Air Branch  
P.O. Box 3378 • Honolulu, HI 96801-3378 • Phone: (808) 586-4200

1. Company Name: Hawaii Trucking and Crushing, LLC
2. Facility Name (if different from the Company): \_\_\_\_\_
3. Mailing Address: P.O. Box 75246  
 City: Kapolei State: HI Zip Code: 96707  
 Phone Number: (808) 440-9707
4. Name of ~~Owner~~ Owner's Agent: J. W. Morrow  
 Title: Environ. Mgmt. Consultant Phone: (808) 942-9096  
 Mailing Address: 1481 South King Street, Suite 548  
 City: Honolulu State: HI Zip Code: 96814
5. Plant Site Manager/Other Contact: Stoney Samson  
 Title: President Phone: (808) 440-9707  
 Mailing Address: P.O. Box 75246  
 City: Kapolei State: HI Zip Code: 96707
6. Permit Application Basis: (Check appropriate boxes)
- |  |  |
|--|--|
| <input type="checkbox"/> Initial Permit for a New Source   | <input type="checkbox"/> Initial Permit for an Existing Source |
| <input checked="" type="checkbox"/> Renewal of Existing Permit   | <input type="checkbox"/> General Permit                        |
| <input type="checkbox"/> Transfer of Permit  |  |
| <input type="checkbox"/> Modification [ Is the modification: <input checked="" type="checkbox"/> Significant <input type="checkbox"/> Minor <input type="checkbox"/> Uncertain ] |  |
7. If renewal or modification, include existing permit number: CSP 0839-01-CT
8. Does the Proposed Source require a County Special Management Area Permit?     Yes     No
9. Type of Source (Check One):     Covered     Temporary Covered  
    Noncovered     Temporary Noncovered  
    Covered & PSD     Uncertain
10. Standard Industrial Classification Code (SICC), if known: 1429

11. Proposed Equipment/Plant Location (e.g. street address): 1730 Kittyhawk Street (NAS Barbers Point)  
 City: Kapolei State: HI Zip Code: 96707  
 UTM Coordinates (meters): East: 595,744 North: 2,356,159  
 UTM Zone: 4 UTM Horizontal Datum:  Old Hawaiian  NAD-27  NAD-83

12. General Nature of Business: general contractor

13. Date of Planned Commencement of Construction or Modification: N/A

14. Is **any** of the equipment to be leased to another individual or entity?  Yes  No

15. Type of Organization:  Corporation  Individual Owner  Partnership  
 Government Agency (Government Facility Code: \_\_\_\_\_)  
 Other: LLC

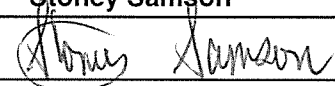
*Any applicant for a permit who fails to submit any relevant facts or who has submitted incorrect information in any permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application, but prior to the issuance of the noncovered source permit or release of a draft covered source permit. (HAR §11-60.1-64 & 11-60.1-84)*

**RESPONSIBLE OFFICIAL** (as defined in HAR §11-60.1-1)

Name (Last): Samson (First): Stoney (MI): \_\_\_\_\_  
 Title: President Phone: (808) 440-9707  
 Mailing Address: P.O. Box 75246  
 City: Kapolei State: HI Zip Code: 96707

**Certification by Responsible Official** (pursuant to HAR §11-60.1-4)

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules (HAR), Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

NAME (Print/Type): Stoney Samson  
 (Signature):  Date: 4-26-21

|  |
|--|
| <p><b>FOR AGENCY USE ONLY:</b></p> <p>File/Application No.: _____</p> <p>Island: _____</p> <p>Date Received: _____</p> |
|--|

## 1. INTRODUCTION

Hawaii Trucking & Crushing, LLC (the "Applicant") is submitting herewith its permit renewal application for CSP No. 0839-01-CT in accordance with Hawaii Administrative Rules (HAR) Chapter 11-60.1. The application package includes Forms S-1, S-3, C-1 and C-2.

## 2. APPLICABILITY

§11-60.1-101 requires submittal of a renewal application, subject to the same requirements for an initial application for a covered source permit, a minimum of twelve months prior to the date of permit expiration unless a request for extension is submitted. CSP No. 0839-01-CT expires on 15 November 2022.

## 3. FORM S-1 INFORMATION

a. Emissions Units Table. See Table S-1.1.

b. Process Flow Diagram. The process is self-evident as rock and soil are dropped into a vibrating feeder, conveyed to the impact crusher where it is reduced in size and conveyed to a stockpile. The unit also has an onboard screen to separate large material fragments and return them to the crusher for further processing. The crushed material can be further size segregated by the self-propelled 2-deck screen. Both the self-propelled crusher and screen are powered by exempt diesel engines. There is also a separate portable screener powered by an insignificant diesel engine.

c. Description of Emissions Points. There are no stationary point sources of emissions as the engines that power the crushing and screening units are either exempt or insignificant.

d. Emission Calculations. See Appendix A.

e. Facility Location Map. See Figures S-1.1 for the current location of the equipment.



TABLE S-1.1

**EMISSIONS UNITS TABLE**

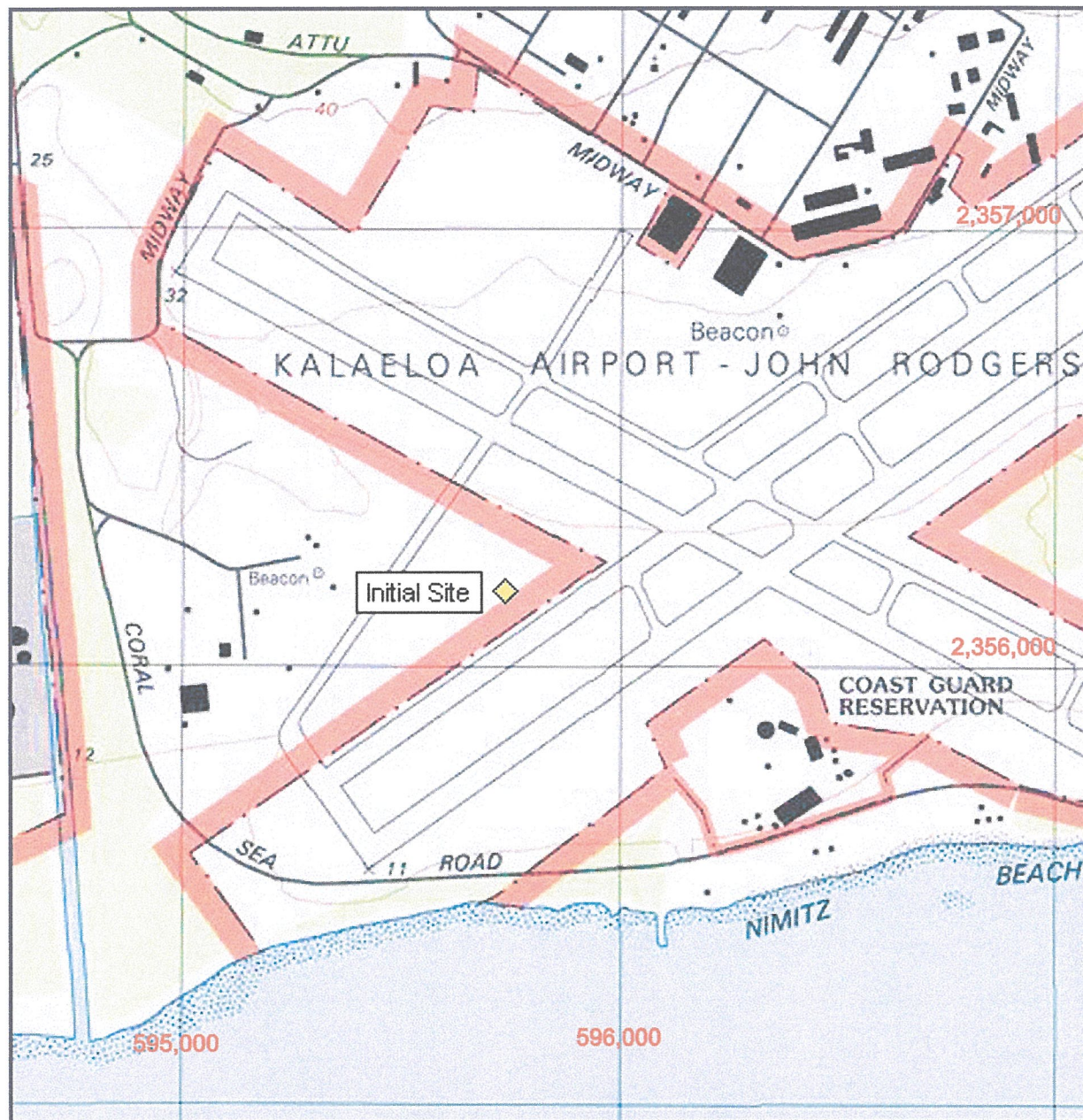
Review of applications and issuance of permits will be expedited by supplying all necessary information on this table.

| Stack No. | AIR POLLUTANT DATA: EMISSION POINTS |  |             | AIR POLLUTANT EMISSION RATE                             |          | UTM Zone: 4<br>Horizontal Datum <sup>a</sup> : NAD-83 |   | Stack Source Parameters |                                |                     |                |                         |           |               |
|-----------|-------------------------------------|--|-------------|---|----------|---|---|-------------------------|--------------------------------|---------------------|----------------|-------------------------|-----------|---------------|
|           | Unit No.                            | Equipment Name/Description and SICC Number               | Equip. Date | Regulated/<br>Hazardous Air<br>Pollutant Name &<br>CAS# | #/hr     | Tons /yr  | Coordinates (meters)                            | Stack Height (m)        | Direction (u,d,h) <sup>b</sup> | Inside Diameter (m) | Velocity (m/s) | Actual Flow Rate (m3/s) | Temp (°K) | Capped? (Y/N) |
|           |                                     | Fugitive dust sources (RM60GO) impact crusher            | existing    | PM/TSP  | 0.79     | 15.96   | East<br>North<br>East<br>North<br>East<br>North | 595,744<br>2,356,159    |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM10  | 0.30     | 7.20  |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM2.5   | 0.04     | 1.11  |   |                         |                                |                     |                |                         |           |               |
|           |                                     | Fugitive dust sources (RM90GO) impact crusher            | existing    | PM/TSP  | 0.79     | 6.94  | East<br>North<br>East<br>North                  | 595,744<br>2,356,159    |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM10  | 0.30     | 4.25  |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM2.5   | 0.04     | 1.11  |   |                         |                                |                     |                |                         |           |               |
|           |                                     | Fugitive dust sources (TS3600 2-deck screen)             | existing    | PM/TSP  | 0.64     | 9.03  | East<br>North<br>East<br>North                  | 595,744<br>2,356,159    |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM10  | 2.16E-01 | 3.90E+00  |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM2.5   | 3.56E-02 | 1.08E+00  |   |                         |                                |                     |                |                         |           |               |
|           |                                     | Fugitive dust sources (EZ-Screen 1200XL portable screen) | existing    | PM/TSP  | 1.48E+00 | 1.20E+01  | East<br>North<br>East<br>North                  | 595,744<br>2,356,159    |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM10  | 4.06E-01 | 4.38E+00  |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             | PM2.5   | 1.34E-02 | 8.75E-01  |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             |   |          |   |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             |   |          |   |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             |   |          |   |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             |   |          |   |   |                         |                                |                     |                |                         |           |               |
|           |                                     |  |             |   |          |   |   |                         |                                |                     |                |                         |           |               |

(a) Specify UTM Horizontal Datum as Old Hawaiian, NAD-83, or NAD-27

(b) Specify the direction of the stack exhaust as u= upward, d= downward, or h = horizontal

**FIGURE S-1.1**  
**Initial Equipment Location**



USGS Quad Ewa (1998)  
1:24,000 (NAD-83)

**FORM S-3**

## I. §11-60.1-101 REQUIREMENTS

A. Changes. The only change being proposed in this application is the addition of the following soil screener:

176 TPH EZ-Screen portable screening plant, model 1200XL, S/N CXL2252

B. Equipment Specifications. See Table S-3.1. Manufacturer's literature is enclosed at Appendix B.

C. Process Description. Raw material (concrete or stone) is dropped into the vibrating feeder by a loader or excavator and passed to the impact crusher. The crushed material drops on to a moving conveyor belt and is transported to a screen. The material that passes through the screen drops on a conveyor belt, which transports the material to a stockpile. The top deck material that does not pass the screen falls on a conveyor, which returns the material to the vibrating feeder for a second run through the crusher.

The portable screener is fed by a loader and the material passing the screen is conveyed to a pile. The larger material on the screen top slides off to a pile adjacent to the screener.

For both crushers, the process is powered by exempt diesel engines that also provide power to the tracks that move the crushers. The mobile screen is powered by an insignificant 56-hp engine. The portable screener is powered by an exempt 19-hp engine.

Process is a SICC 1429. There are no alternate operating scenarios.

1. Air Pollution Control/Compliance Monitoring. Air pollution control on the stone processing system will be accomplished by pre-wetting of material before loading on the feeder. In addition, water sprays will be used if necessary at the impactor and each transfer point to maintain adequate moisture content of the material being processed.

Compliance monitoring will be achieved by monthly visible emissions observations.

2. Insignificant Activities:

- a. 56 hp Deutz engine that powers the TS3600 mobile screen
- b. 19 hp Deutz engine that powers the EX-Screen portable screening plant

D. Typical Operating Schedule: 8 hr/da, 5 da/wk, 52 wk/yr

TABLE S-3.1

EQUIPMENT SPECIFICATIONS

| Equipment                                     | Serial No.     | Maximum Design Capacity | Fuel Type  | Fuel Use   | Production Capacity | Production Rate | Raw Materials           |
|---|----------------|-------------------------|------------|------------|---------------------|-----------------|-------------------------|
| Rubblemaster RM80GO!<br>Mobile Impact Crusher | RM80-00-205    | 200 T/hr                | N/A        | N/A        | 200 T/hr            | N/A             | concrete, stone, RAP    |
| Rubblemaster RM90GO!<br>Mobile Impact Crusher | RM90-04163     | 200 T/hr                | N/A        | N/A        | 200 T/hr            | N/A             | concrete, stone, RAP    |
| Rubblemaster TS3600<br>Mobile Screen          | TS3600-0024    | 200 T/hr                | N/A        | N/A        | 200 T/hr            | N/A             | concrete, stone, RAP    |
| <b>EZ-Screen Portable<br/>Screener</b>        | <b>CXL2252</b> | <b>176 T/hr</b>         | <b>N/A</b> | <b>N/A</b> | <b>176 T/hr</b>     | <b>N/A</b>      | <b>soil &amp; stone</b> |

E. Applicable Requirements:

1. Requirements:

- a. 40 CFR 60, Subpart OOO
- b. HAR, Chapt. 11-59, HAAQS
- d. HAR, §11-60.1-11, sampling, testing & reporting
- e. HAR, §11-60.1-32(b), visible emissions
- f. HAR, Chapter 11-60.1, Subchapter 5, covered sources
- c. HAR, §11-60.1-2, prohibition of air pollution
- g. HAR, Chapter 11-60.1, Subchapter 6, fees
- h. HAR, Chapter 11-60.1, Subchapter 10, field citations
- i. CSP 0839-01-CT

2. Exemptions:

- a. 260 hp diesel engine that powers the RM80GO! self-propelled crusher
- b. 260 hp diesel engine that powers the RM90GO! self-propelled crusher

F. Operational Limits. N/A

G. Ambient Air Quality Assessment for Existing Sources. N/A

H. Ambient Air Quality Assessment for New Sources.

I. PSD Applicability. N/A

J. Emissions Trading. N/A

K. Compliance Plan & Certification. Forms C-1 and C-2 are attached.

**II. APPLICATION FEE**

The required \$500 fee for a permit renewal for a non-major covered source was previously submitted.

**FORM C-1**

### C-1: Compliance Plan

The Responsible Official shall submit a Compliance Plan as indicated in the Instructions for Applying for an Air Pollution Control Permit and at such other times as requested by the Director of Health (hereafter, Director).

Use separate sheets of paper if necessary.

1. Compliance status with respect to all Applicable Requirements:

Will your facility be in compliance, or is your facility in compliance, with all applicable requirements in effect at the time of your permit application submittal?

- YES      {if YES, complete items a and c below}
- NO        {if NO, complete items a, b, and c below}

a. Identify all applicable requirement(s) for which compliance is achieved.

|   |  |
|---|--|
| HAR Chapt. 11-59, HAAQS                       | 40 CFR 60, Subpart OOO                     |
| HAR 11-60.1-11, sampling, testing & reporting | HAR 11-60.1-31, applicability              |
| HAR 11-60.1-32(b), visible emissions          | HAR 11-60.1, Subchapt. 5 Covered Sources   |
| HAR 11-60.1, Subchapt. 6, Fees                | HAR 11-60.1, Subchapt. 10, Field Citations |
| CSP 0839-01-CT                                |  |

Provide a statement that the source is in compliance and will continue to comply with all such requirements. To the best of my knowledge and belief, the two 200 TPH mobile impact crushers, one (1) 200 TPH mobile screen and one 176 TPH portable soil screener have all been and will continue to be in compliance with the aforementioned applicable requirements.

b. Identify all applicable requirement(s) for which compliance is NOT achieved.

N/A

Provide a detailed Schedule of Compliance Schedule and a description of how the source will achieve compliance with all such applicable requirements.

| <u>Description of Remedial Action</u> | <u>Expected Date of Completion</u> |
|---------------------------------------|------------------------------------|
| N/A                                   |                                    |
|                                       |                                    |
|                                       |                                    |



- c. Identify any other applicable requirement(s) with a future compliance date that your source is subject to. These applicable requirements may take effect AFTER permit issuance:

| <u>Applicable Requirement</u> | <u>Effective Date</u> | <u>Currently in Compliance?</u> |
|-------------------------------|-----------------------|---------------------------------|
| N/A                           |                       |                                 |
|                               |                       |                                 |
|                               |                       |                                 |
|                               |                       |                                 |

If the source is not currently in compliance, provide a Schedule of Compliance and a description of how the source will achieve compliance with all such applicable requirements:

| <u>Description of Proposed Action/Steps to Achieve Compliance</u> | <u>Expected Date of Achieving Compliance</u> |
|---|--|
| N/A   |  |
|   |  |
|   |  |
|   |  |

Provide a statement that the source on a timely basis will meet all these applicable requirements:

N/A

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If the expected date of achieving compliance will NOT meet the applicable requirement's effective date, provide a more detailed description of each remedial action and the expected date of completion:

| <u>Description of Remedial Action and Explanation</u> | <u>Expected Date of Completion</u> |
|---|------------------------------------|
| N/A   |                                    |
|   |                                    |
|   |                                    |
|   |                                    |

2. Compliance Progress Reports:

- a. If a compliance plan is being submitted to remedy a violation, complete the following information:

Frequency of Submittal: \_\_\_\_\_ Beginning Date: \_\_\_\_\_  
(less than or equal to 6 months)

b. Date(s) that the Action described in (1)(b) was achieved:

| <u>Remedial Action</u> | <u>Date Achieved</u> |
|------------------------|----------------------|
| N/A                    |                      |
|                        |                      |
|                        |                      |

c. Narrative description of why any date(s) in (1)(b) was not met, and any preventive or corrective measures taken in the interim:

N/A

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**RESPONSIBLE OFFICIAL**

(as defined in HAR §11-60.1-1)

Name (Last): Samson (First): Stoney (MI): \_\_\_\_\_

Title: President Phone: (808) 440-9707

Mailing Address: P.O. Box 75246

City: Kapolei State: HI Zip Code: 96707

**Certification by Responsible Official**

(pursuant to HAR §11-60.1-4)

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Name (Print/Type): Stoney Samson

(Signature): *Stoney Samson* Date: 11-26-20

Facility Name: Hawaii Trucking & Crushing, LLC

Location: Barbers Point, Oahu

Permit Number: CSP 0839-01-CT

|                       |       |
|-----------------------|-------|
| FOR AGENCY USE ONLY   |       |
| File/Application No.: | _____ |
| Island:               | _____ |
| Date Received:        | _____ |

**FORM C-2**

**C-2: Compliance Certification**

The Responsible Official shall submit a Compliance Certification as indicated in the Instructions for Applying for an Air Pollution Control Permit and at such other times as requested by the Director of Health (hereafter, Director).

Complete as many copies of this form as needed. Use separate sheets of paper if necessary.

---

**RESPONSIBLE OFFICIAL** (as defined in HAR §11-60.1-1)

Name (Last): Samson (First): Stoney (MI): \_\_\_\_\_  
 Title: President Phone: (808) 440-9707  
 Mailing Address: P.O. Box 75246  
 City: Kapolei State: HI Zip Code: 96707

**Certification by Responsible Official** (pursuant to HAR §11-60.1-4)

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Name (Print/Type): Stoney Samson  
 (Signature): *Stoney Samson* Date: 4-26-21

Facility Name: Hawaii Trucking & Crushing, LLC  
 Location: Barbers Point, Oahu  
 Permit Number: CSP 0839-01-CT

**FOR AGENCY USE ONLY**

File/Application No.: \_\_\_\_\_

Island: \_\_\_\_\_

Date Received: \_\_\_\_\_

Complete the following information for **each** applicable requirement that applies to **each** emissions unit at the source. Also include any additional information as required by the Director. The compliance certification may reference information contained in a previous compliance certification submittal to the Director, provided such referenced information is certified as being current and still applicable.

1. Schedule for submission of Compliance Certifications during the term of the permit:

Frequency of Submittal: Annually Beginning Date: 2022

2. Emissions Unit No./Description: 200 TPH RM80GO! impact crusher, S/N RM80-00-205,

200 TPH RM90GO! impact crusher, S/N RM90-04163, 200 TPH TS3600 mobile screen, S/N TS3600-0024

176TPH EZ-Screen portble screener, S/N CXL2252

3. Identify the applicable requirement(s) that is/are the basis of this certification:

HAR, Chapt. 11-59, HAAQS 40 CFR 60, Subpart OOO

HAR §11-60.1-11, sampling, testing & reporting HAR §11-60.1-31, applicability

HAR §11-60.1-32(b), visible emissions

HAR Chapt. 11-60.1, Subchapter 5, Covered Sources HAR Chapt. 11-60.1, Subchapt. 6, Fees

HAR Chapt. 11-60.1, Subchapt. 10, Field Citations CSP 0839-01-CT

4. Compliance status:

a. Will the emissions unit be in compliance with the identified applicable requirement(s)?

YES  NO

b. If YES, will compliance be continuous or intermittent?

Continuous  Intermittent

c. If NO, explain.

\_\_\_\_\_

5. Describe the methods to be used in determining compliance of the emissions unit with the applicable requirement(s), including any monitoring, recordkeeping, reporting requirements, and/or test methods:

Monitoring, recordkeeping, reporting, and testing

Provide a detailed description of the methods used to determine compliance: (e.g., monitoring device type and location, test method description, or parameter being recorded, frequency of recordkeeping, etc.)

Monitoring:

- a. Monthly visible emissions will be observed and recorded

Recordkeeping

- b. Records of monthly production will be maintained.
- c. Records of monthly V.E. observations will be maintained.
- d. Records will be maintained on all inspections, maintenance, and repair work done on the permitted
- e. Copies of all annual source performance test plans and test reports will be maintained.

Reporting

- i. Annual Emissions Report Form will be submitted.
- j. An annual compliance certification will be submitted.

Testing

- k. An annual performance test will be conducted on the crushers and mobile screen in accordance with the requirements of 40 CFR 60, Subpart OOO.

6. Statement of Compliance with Enhanced Monitoring and Compliance Certification Requirements.

- a. Will the emissions unit identified in this application be in compliance with applicable enhanced monitoring and compliance certification requirements?

N/A                       YES                       NO

- b. If YES, identify the requirements and the provisions being take to achieve compliance:

\_\_\_\_\_

- c. If NO, describe below which requirements will not be met:

\_\_\_\_\_

**APPENDIX A**  
**CALCULATIONS**

**FUGITIVE TSP EMISSIONS CALCULATIONS  
200 TPH RM80GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Control'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|--------------------------|------------------|---------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload             | n/d              | n/d                 | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00E+00                               | 0.00                               |
| F2                      | Feeder to impact crusher | 3.00E-03         | 1.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |
| F3                      | 200 TPH impact crusher   | 5.40E-03         | 1.20E-03            | 8,760        | 200.0                       | 1,752,000              | water        | 2.40E-01                                | 1.05E+00                               | 4.73                               |
| F4                      | Crusher to screen        | 3.00E-03         | 1.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |
| F5                      | Screen                   | 2.50E-02         | 2.20E-03            | 8,760        | 200.0                       | 1,752,000              | water        | 4.40E-01                                | 1.93E+00                               | 21.90                              |
| F6                      | Screen to conveyor       | 3.00E-03         | 1.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |
| F7                      | Conveyor to Stockpile    | 3.00E-03         | 1.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |
| <b>Total:</b>           |                          |                  |                     |              |                             |                        |              | <b>0.79</b>                             | <b>3.47</b>                            | <b>37.14</b>                       |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)



**FUGITIVE PM10 EMISSIONS CALCULATIONS  
200 TPH RM80GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|--------------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload             | 1.60E-05         | 1.60E-05         | 8,760        | 200.0                       | 1,752,000              | n/a          | 3.20E-03                                | 1.40E-02                               | 1.40E-02                           |
| F2                      | Feeder to impact crusher | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F3                      | 200 TPH impact crusher   | 2.40E-03         | 5.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 1.08E-01                                | 4.73E-01                               | 2.10                               |
| F4                      | Crusher to screen        | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F5                      | Screen                   | 8.70E-03         | 7.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 1.48E-01                                | 6.48E-01                               | 7.62                               |
| F6                      | Screen to conveyor       | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F7                      | Conveyor to Stockpile    | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| <b>Total:</b>           |                          |                  |                  |              |                             |                        |              | <b>0.30</b>                             | <b>1.30</b>                            | <b>13.59</b>                       |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM<sub>2.5</sub> EMISSIONS CALCULATIONS  
200 TPH RM80GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Control'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|--------------------------|------------------|---------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload             | n/d              | n/d                 | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00                                   | 0.00                               |
| F2                      | Feeder to impact crusher | n/d              | 1.30E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F3                      | 200 TPH impact crusher   | n/d              | 1.00E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 2.00E-02                                | 0.09                                   | 0.00                               |
| F4                      | Crusher to screen        | n/d              | 1.30E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F5                      | Screen                   | n/d              | 5.00E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 1.00E-02                                | 0.04                                   | 0.00                               |
| F6                      | Screen to conveyor       | n/d              | 1.30E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F7                      | Conveyor to Stockpile    | n/d              | 1.30E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| <b>Total:</b>           |                          |                  |                     |              |                             |                        |              | <b>0.04</b>                             | <b>0.18</b>                            | <b>0.00</b>                        |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PARTICULATE MATTER  
EMISSIONS CALCULATIONS  
RM80GO! STOCKPILE**

| Storage Pile | Production (TPY) | TSP                    |      | PM <sub>10</sub>       |      | PM <sub>2.5</sub>      |                  |
|--------------|------------------|------------------------|------|------------------------|------|------------------------|------------------|
|              |                  | EF (lb/T) <sup>1</sup> | TPY  | EF (lb/T) <sup>2</sup> | TPY  | EF (lb/T) <sup>3</sup> | TPY <sup>3</sup> |
| All          | 1,752,000        | 7.13E-03               | 6.24 | 3.37E-03               | 2.95 | 1.06E-03               | 0.93             |
|              |                  | TOTAL:                 |      | 6.24                   |      | 2.95                   |                  |
|              |                  |                        |      |                        |      | 0.93                   |                  |

**Notes:**

1. Based on U=15 mph, M=2.525%, k=0.74 (AP-42, Sec 13.2.4, Nov 06)
2. Based on U=15 mph, M=2.525%, k=0.35 (AP-42, Sec 13.2.4, Nov 06)
3. Based on U=15 mph, M=2.525%, k=0.11 (AP-42, Sec 13.2.4, Nov 06)

**FUGITIVE TSP EMISSIONS CALCULATIONS  
200 TPH RM90GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |              |
|-------------------------|--------------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|--------------|
| F1                      | Truck unload             | n/d              | n/d              | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00E+00                               | 0.00                               |              |
| F2                      | Feeder to impact crusher | 3.00E-03         | 1.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F3                      | 200 TPH impact crusher   | 5.40E-03         | 1.20E-03         | 8,760        | 200.0                       | 1,752,000              | water        | 2.40E-01                                | 1.05E+00                               | 4.73                               |              |
| F4                      | Crusher to screen        | 3.00E-03         | 1.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F5                      | Screen                   | 2.50E-02         | 2.20E-03         | 8,760        | 200.0                       | 1,752,000              | water        | 4.40E-01                                | 1.93E+00                               | 21.90                              |              |
| F6                      | Screen to conveyor       | 3.00E-03         | 1.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F7                      | Conveyor to Stockpile    | 3.00E-03         | 1.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| <b>Total:</b>           |                          |                  |                  |              |                             |                        |              |   | <b>0.79</b>                            | <b>3.47</b>                        | <b>37.14</b> |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM10 EMISSIONS CALCULATIONS  
200 TPH RM90GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Control'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|--------------------------|------------------|---------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload             | 1.60E-05         | 1.60E-05            | 8,760        | 200.0                       | 1,752,000              | n/a          | 3.20E-03                                | 1.40E-02                               | 1.40E-02                           |
| F2                      | Feeder to impact crusher | 1.10E-03         | 4.60E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F3                      | 200 TPH impact crusher   | 2.40E-03         | 5.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 1.08E-01                                | 4.73E-01                               | 2.10                               |
| F4                      | Crusher to screen        | 1.10E-03         | 4.60E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F5                      | Screen                   | 8.70E-03         | 7.40E-04            | 8,760        | 200.0                       | 1,752,000              | water        | 1.48E-01                                | 6.48E-01                               | 7.62                               |
| F6                      | Screen to conveyor       | 1.10E-03         | 4.60E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| F7                      | Conveyor to Stockpile    | 1.10E-03         | 4.60E-05            | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |
| <b>Total:</b>           |                          |                  |                     |              |                             |                        |              | <b>0.30</b>                             | <b>1.30</b>                            | <b>13.59</b>                       |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM<sub>2.5</sub> EMISSIONS CALCULATIONS  
200 TPH RM90GO! MOBILE CRUSHER**

| Fugitive Emission Point | Source                   | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|--------------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload             | n/d              | n/d              | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00                                   | 0.00                               |
| F2                      | Feeder to impact crusher | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F3                      | 200 TPH impact crusher   | n/d              | 1.00E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 2.00E-02                                | 0.09                                   | 0.00                               |
| F4                      | Crusher to screen        | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F5                      | Screen                   | n/d              | 5.00E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 1.00E-02                                | 0.04                                   | 0.00                               |
| F6                      | Screen to conveyor       | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| F7                      | Conveyor to Stockpile    | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |
| <b>Total:</b>           |                          |                  |                  |              |                             |                        |              | <b>0.04</b>                             | <b>0.18</b>                            | <b>0.00</b>                        |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PARTICULATE MATTER  
EMISSIONS CALCULATIONS  
RM90GO! STOCKPILE**

| Storage Pile | Production (TPY) | TSP                    |      | PM <sub>10</sub>       |      | PM <sub>2.5</sub>      |                  |
|--------------|------------------|------------------------|------|------------------------|------|------------------------|------------------|
|              |                  | EF (lb/T) <sup>1</sup> | TPY  | EF (lb/T) <sup>2</sup> | TPY  | EF (lb/T) <sup>3</sup> | TPY <sup>3</sup> |
| All          | 1,752,000        | 7.13E-03               | 6.24 | 3.37E-03               | 2.95 | 1.06E-03               | 0.93             |
|              |                  | TOTAL:                 |      | 6.24                   |      | 2.95                   |                  |
|              |                  |                        |      |                        |      | 0.93                   |                  |

**Notes:**

1. Based on U=15 mph, M=2.525%, k=0.74 (AP-42, Sec 13.2.4, Nov 06)
2. Based on U=15 mph, M=2.525%, k=0.35 (AP-42, Sec 13.2.4, Nov 06)
3. Based on U=15 mph, M=2.525%, k=0.11 (AP-42, Sec 13.2.4, Nov 06)

**FUGITIVE TSP EMISSIONS CALCULATIONS  
200 TPH TS3600 MOBILE SCREEN**

| Fugitive Emission Point | Source               | UnCon. EF (lb/T) | Cont'l'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |              |
|-------------------------|----------------------|------------------|--------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|--------------|
| F1                      | Truck unload         | n/d              | n/d                | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00E+00                               | 0.00                               |              |
| F2                      | Feeder to screen     | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F3                      | Screen               | 2.50E-02         | 2.20E-03           | 8,760        | 200.0                       | 1,752,000              | water        | 4.40E-01                                | 1.93E+00                               | 21.90                              |              |
| F4                      | Screen to stacker #1 | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F5                      | Stacker to stockpile | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F6                      | Screen to stacker #2 | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F7                      | Stacker to stockpile | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F8                      | Screen to stacker #2 | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| F9                      | Stacker to stockpile | 3.00E-03         | 1.40E-04           | 8,760        | 200.0                       | 1,752,000              | water        | 2.80E-02                                | 1.23E-01                               | 2.63                               |              |
| <b>Total:</b>           |                      |                  |                    |              |                             |                        |              |   | <b>0.64</b>                            | <b>2.79</b>                        | <b>40.30</b> |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)



**FUGITIVE PM10 EMISSIONS CALCULATIONS  
200 TPH TS3600 MOBILE SCREEN**

| Fugitive Emission Point | Source               | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |              |
|-------------------------|----------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|--------------|
| F1                      | Truck unload         | 1.60E-05         | 1.60E-05         | 8,760        | 200.0                       | 1,752,000              | n/a          | 3.20E-03                                | 1.40E-02                               | 1.40E-02                           |              |
| F2                      | Feeder to screen     | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F3                      | Screen               | 8.70E-03         | 7.40E-04         | 8,760        | 200.0                       | 1,752,000              | water        | 1.48E-01                                | 6.48E-01                               | 7.62                               |              |
| F4                      | Screen to stacker #1 | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F5                      | Stacker to stockpile | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F6                      | Screen to stacker #2 | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F7                      | Stacker to stockpile | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F8                      | Screen to stacker #2 | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| F9                      | Stacker to stockpile | 1.10E-03         | 4.60E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 9.20E-03                                | 4.03E-02                               | 0.96                               |              |
| <b>Total:</b>           |                      |                  |                  |              |                             |                        |              |   | <b>0.22</b>                            | <b>0.94</b>                        | <b>14.38</b> |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM<sub>2.5</sub> EMISSIONS CALCULATIONS  
200 TPH TS3600 MOBILE SCREEN**

| Fugitive Emission Point | Source               | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |             |
|-------------------------|----------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|-------------|
| F1                      | Truck unload         | n/d              | n/d              | 8,760        | 200.0                       | 1,752,000              | n/a          | 0.00E+00                                | 0.00                                   | 0.00                               |             |
| F2                      | Feeder to screen     | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| F3                      | Screen               | n/d              | 5.00E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 1.00E-02                                | 0.04                                   | 0.00                               |             |
| F4                      | Screen to stacker #1 | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| F5                      | Stacker to stockpile | n/d              | 5.00E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 1.00E-02                                | 0.04                                   | 0.00                               |             |
| F6                      | Screen to stacker #2 | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| F7                      | Stacker to stockpile | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| F8                      | Screen to stacker #2 | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| F9                      | Stacker to stockpile | n/d              | 1.30E-05         | 8,760        | 200.0                       | 1,752,000              | water        | 2.60E-03                                | 0.01                                   | 0.00                               |             |
| <b>Total:</b>           |                      |                  |                  |              |                             |                        |              |   | <b>0.04</b>                            | <b>0.16</b>                        | <b>0.00</b> |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE TSP EMISSIONS CALCULATIONS  
176 TPH PORTABLE SCREEN**

| Fugitive Emission Point | Source                | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|-----------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload          | n/d              | n/d              | 8,760        | 176.0                       | 1,541,760              | n/a          | 0.00E+00                                | 0.00E+00                               | 0.00                               |
| F2                      | 5 x 6 screen          | 3.00E-01         | 3.60E-03         | 8,760        | 176.0                       | 1,541,760              | water        | 6.34E-01                                | 2.78E+00                               | 231.26                             |
| F3                      | Screen to stockpile 1 | 5.40E-03         | 1.20E-03         | 8,760        | 176.0                       | 1,541,760              | water        | 2.11E-01                                | 9.25E-01                               | 4.16                               |
| F4                      | Screen to stockpile 2 | 3.00E-01         | 3.60E-03         | 8,760        | 176.0                       | 1,541,760              | water        | 6.34E-01                                | 2.78E+00                               | 231.26                             |
| <b>Total:</b>           |                       |                  |                  |              |                             |                        |              | <b>1.48</b>                             | <b>6.48</b>                            | <b>466.69</b>                      |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM10 EMISSIONS CALCULATIONS  
176 TPH PORTABLE SCREEN**

| Fugitive Emission Point | Source                | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |              |
|-------------------------|-----------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|--------------|
| F1                      | Truck unload          | 1.60E-05         | 1.60E-05         | 8,760        | 176.0                       | 1,541,760              | n/a          | 2.82E-03                                | 1.23E-02                               | 1.23E-02                           |              |
| F2                      | 5 x 6 screen          | 7.20E-02         | 2.20E-03         | 8,760        | 176.0                       | 1,541,760              | water        | 3.87E-01                                | 1.70E+00                               | 55.50                              |              |
| F3                      | Screen to stockpile 1 | 1.10E-03         | 4.60E-05         | 8,760        | 176.0                       | 1,541,760              | water        | 8.10E-03                                | 3.55E-02                               | 0.85                               |              |
| F4                      | Screen to stockpile 2 | 1.10E-03         | 4.60E-05         | 8,760        | 176.0                       | 1,541,760              | water        | 8.10E-03                                | 3.55E-02                               | 0.85                               |              |
| <b>Total:</b>           |                       |                  |                  |              |                             |                        |              |   | <b>0.41</b>                            | <b>1.78</b>                        | <b>57.21</b> |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

**FUGITIVE PM<sub>2.5</sub> EMISSIONS CALCULATIONS  
176 TPH PORTABLE SCREEN**

| Fugitive Emission Point | Source                | UnCon. EF (lb/T) | Cont'd EF (lb/T) | Annual Hours | Process Input/Output (T/hr) | Annual Throughput T/yr | Control Type | Controlled Emissions lb/hr <sup>3</sup> | Controlled Emissions T/yr <sup>4</sup> | Uncon. Emissions T/yr <sup>4</sup> |
|-------------------------|-----------------------|------------------|------------------|--------------|-----------------------------|------------------------|--------------|---|--|------------------------------------|
| F1                      | Truck unload          | n/d              | n/d              | 8,760        | 176.0                       | 1,541,760              | n/a          | 0.00E+00                                | 0.00                                   | 0.00                               |
| F2                      | 5 x 6 screen          | n/d              | 5.00E-05         | 8,760        | 176.0                       | 1,541,760              | water        | 8.80E-03                                | 0.04                                   | 0.00                               |
| F3                      | Screen to stockpile 1 | n/d              | 1.30E-05         | 8,760        | 176.0                       | 1,541,760              | water        | 2.29E-03                                | 0.01                                   | 0.00                               |
| F4                      | Screen to stockpile 2 | n/d              | 1.30E-05         | 8,760        | 176.0                       | 1,541,760              | water        | 2.29E-03                                | 0.01                                   | 0.00                               |
| <b>Total:</b>           |                       |                  |                  |              |                             |                        |              | <b>0.01</b>                             | <b>0.06</b>                            | <b>0.00</b>                        |

Notes: Reference: AP-42, Table 11.19.2-2 (8/04)

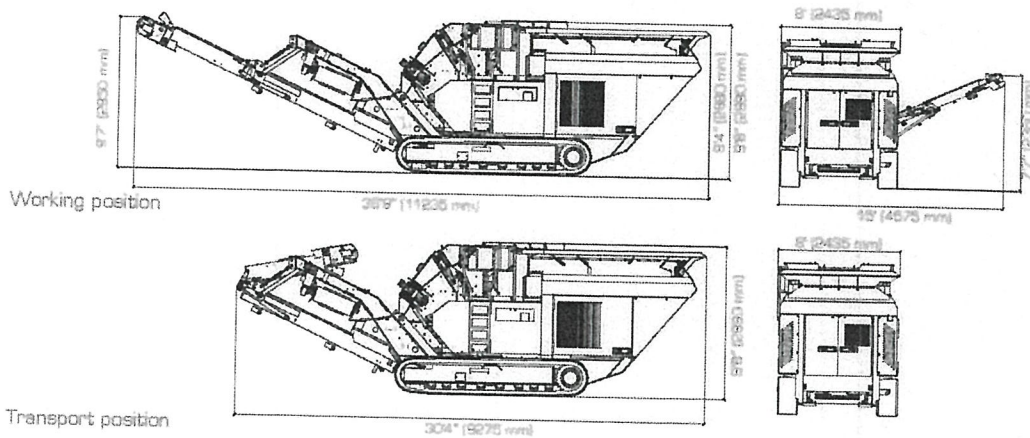
**FUGITIVE PARTICULATE MATTER  
EMISSIONS CALCULATIONS  
PORTABLE SCREEN STOCKPILE**

| Storage Pile | Production<br>(TPY) | TSP                    |      | PM <sub>10</sub>       |      | PM <sub>2.5</sub>      |                  |
|--------------|---------------------|------------------------|------|------------------------|------|------------------------|------------------|
|              |                     | EF (lb/T) <sup>1</sup> | TPY  | EF (lb/T) <sup>2</sup> | TPY  | EF (lb/T) <sup>3</sup> | TPY <sup>3</sup> |
| All          | 1,541,760           | 7.13E-03               | 5.49 | 3.37E-03               | 2.60 | 1.06E-03               | 0.82             |
|              |                     | TOTAL:                 |      | 5.49                   | 2.60 |                        | 0.82             |

**Notes:**

1. Based on U=15 mph, M=2.525%, k=0.74 (AP-42, Sec 13.2.4, Nov 06)
2. Based on U=15 mph, M=2.525%, k=0.35 (AP-42, Sec 13.2.4, Nov 06)
3. Based on U=15 mph, M=2.525%, k=0.11 (AP-42, Sec 13.2.4, Nov 06)

**APPENDIX B**  
**MANUFACTURER'S LITERATURE**



## RM80 GO! – impact crusher with crawler gear

|                                 |   |
|---------------------------------|---|
| Throughput                      | Up to 180 t/h, depending on material  |
| Feed size                       | Edge length max. 850 mm   |
| Inlet opening                   | 860 x 850 mm  |
| Crusher unit                    | RUBBLE MASTER HMIH impact crusher with 2 or 4 hammers   |
| Operation                       | One operator using radio control for crushing and manoeuvring operations  |
| Feed unit                       | Asymmetric 2,6 m <sup>3</sup> vibro-channel with two 3.1 kW vibrator motors<br>Effective feed length and width: 2,980 x 1,990 mm<br>Feed Control System for automatic conveying in line with crusher load<br>Wear-resistant Hardox 400 cladding |
| Pre-screening                   | Efficient pre-screening using bar mesh screen<br>Screen area 1,050 x 800 mm<br>Output on main discharge conveyor via fully integrated bypass chute  |
| Discharge belt crushed material | Folding conveyor 800 mm wide, folds into transport position hydraulically<br>Discharge height 2,950 mm  |
| Drive unit                      | John Deere Diesel engine, 6 cylinder<br>188 kW bei 1,800 rpm<br>EU-RL2004/28 certified<br>Asynchronous generator 40 kVA 400 V<br>230 V and 400 V outlets for external drives up to 15 kVA   |
| Release System                  | Removes blockages inside crusher  |
| Magnetic separator              | Extra strong magnet with left/right function, belt width 800 mm   |
| Transport system                | Crawler gear  |
| Weight                          | 23,600 kg   |
| Options                         | Dust suppression using water spray inside crusher and at outlet<br>Filling pump<br>Discharge belt pre-scringed material<br>Hammer changing system<br>Cable remote control<br>Central lubrication system<br>Blind plate                          |

Specifications subject to change in line with technical developments.  
The machine complies with Directive 2006/42/EC of the European Parliament

COMPACT RECYCLING FOR WINNERS

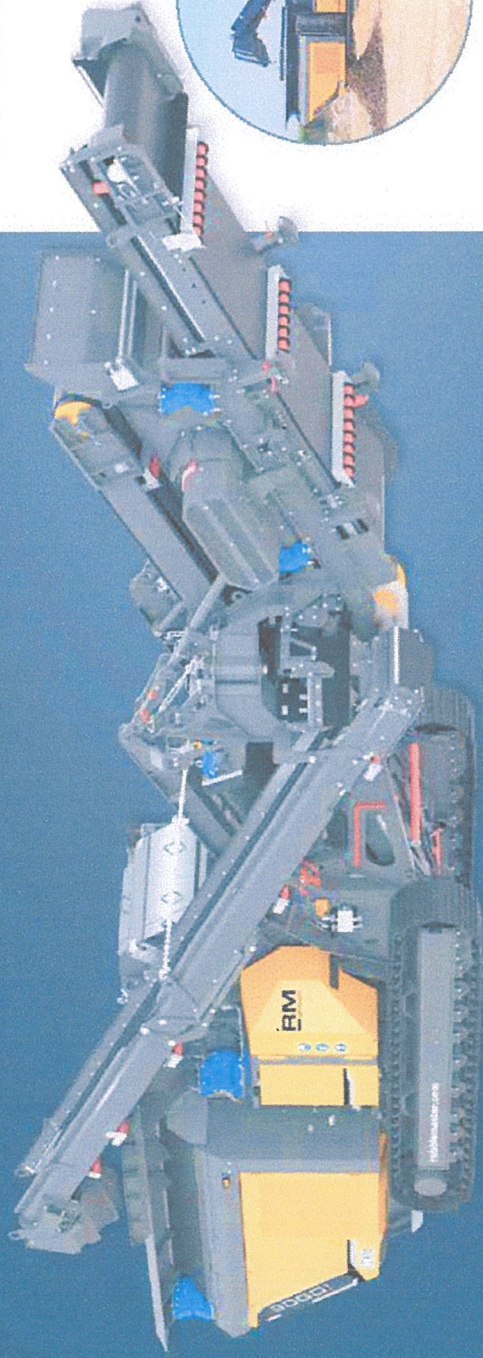
**RUBBLE MASTER®**  
COMPACT RECYCLER



# RM 90GO!

THE FLEXIBLE HIGH PERFORMANCE CRUSHER

This quiet, high performance crusher knows no compromises. With its compact size, even more flexibility and power under the hood, it delivers top performance for your success.



“EXTREMELY POWERFUL”

"We got our first RM 90GO! one year ago. It is perfect for rental because RM crushers are unbelievably flexible, easy to use and extremely powerful. Even customers who have never worked with a crusher before can now easily recycle materials to save on disposal and protect the environment. In a few weeks, we will be taking delivery of our third."

Paul Fox, company owner

## TECHNICAL DATA

|                                 |  |
|---------------------------------|--|
| Throughput                      | up to 200 t/h, depending on material   |
| Feed material size              | up to an edge length of 650 mm   |
| Feed opening                    | 860 x 650 mm   |
| Crusher unit                    | RM crusher with 2 or 4 hammers   |
| Feed unit                       | symmetric 2.6 m3 vibro-channel with 2 vibration motors (31 kW each), loading height 2,960 mm, effective cross-section of feed intake: 2,980 x 1,990 mm |
|                                 | Feed Control System for automatic load-dependent crusher feeding   |
|                                 | wear-resistant cladding Har-dox 400  |
| Main discharge belt (aggregate) | folding conveyor 800 mm wide, folds into transport position hydraulically  |
| Discharge height                | discharge height 2,960 mm  |
| Transport system                | tracks   |
| Weight                          | 23,800 kg  |

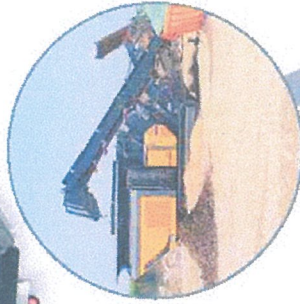


## JOB STORIES

### HIGH QUALITY FINAL AGGREGATE FOR ROAD CONSTRUCTION IN SPAIN

Second crusher for loyal customer: with wind sifter for more possibilities, better final aggregate quality

After running an RM80 for a long time, the specialist in demolition, recycling and earthmoving ordered an RM 90GO! including infinitely variable hydraulic folding retreading belt for oversized material and a wind sifter. The wind sifter blows lightweight material such as styrofoam and wood into a container for an even higher quality final aggregate (0.32 mm).



### RM 90GO! CRUSHES GRANITE IN SKI AREA AT 2,650 M ABOVE SEA LEVEL

5,000 m<sup>3</sup> in just four weeks to build a reservoir and road – efficient and environmentally friendly

In the ski arena at St. Moritz, the mobile RM 90GO! crushed granite for a challenging construction project (400 mm to 30-70 mm). Environmentally friendly on-site crushing saved innumerable journeys by truck. The customer was impressed with the top advice they received and the way the crusher manoeuvred its way along curving, narrow mountain roads.



# DATA

## RM 90GO! - TRACKED MOBILE IMPACT CRUSHER

|   |  |
|---|--|
| <b>Output</b>                                 | Up to 200 t/h, depending on material   |
| <b>Feed material size</b>                     | Edge length max. 650 mm  |
| <b>Inlet opening</b>                          | 860 x 650 mm   |
| <b>Crusher unit</b>                           | RUBBLE MASTER impact crusher with 2 or 4 hammers   |
| <b>Operation</b>                              | One operator using radio control for crushing and manoeuvring operations   |
| <b>Feed unit</b>                              | Asymmetric vibro feeder with 2.6 m <sup>3</sup> and 2 vibrator motors each 3.1 kW, loading height 2,880 mm, effective feed length and width: 2,980 x 1,990 mm<br>Feed control system for automatic crusher feeding Hardox 400 wear lining  |
| <b>Prescreening</b>                           | Efficient prescreen with mesh screen<br><br>Screen area 1,050 x 800 mm discharge on main conveyor belt by means of fully integrated bypass chute or via optional side discharge belt   |
| <b>Main discharge belt (crushed material)</b> | Folding conveyor 800 mm wide, folds into transport position hydraulically<br>Discharge height 2,950 mm   |
| <b>Discharge belt (screened material)</b>     | Folding conveyor 500 mm wide, folds into transport position hydraulically<br>Discharge height 2,400 mm   |
| <b>Power unit</b>                             | John Deere (Stage III A at constant engine speed), 6 cylinder, 194 kW at 1,800 synchronous generator 40 kVA 400 V, electrical outlets 230 V and 400 V for external drives up to 15 kVA, optional engine tier 4f/stage IV<br><br>Optional RM 90TWO GO! John Deere constant speed engine - emissions regulation 3/stage IIIa, for additional electric crushing capability using external power supply, variable rotor speed, available only without RM MS95GO!, RM OS80GO! and RM RFB7540GO! |
| <b>Release system</b>                         | To remove blockages inside crusher   |
| <b>Magnetic separator</b>                     | Ultra-strong magnet, operates to left and right, belt width 800 mm   |
| <b>Transport system</b>                       | Crawler gear   |
| <b>Weight</b>                                 | 23,600 kg  |
| <b>Options</b>                                | Dust suppression using water spray inside crusher and at outlet and belts<br>Diesel filling pump<br>Crusher hammer changing system<br>Cable remote control<br>Central lubrication system<br>Blind plate for grizzly  |
| <b>Add-on equipment</b>                       | RM MS95GO! mobile single screen unit with a screen surface of 2.0 x 1.1 m and two belts for precisely screened product.<br><br>Screen unit in combination with an RM RFB7540GO! for oversize grain refeeding in closed circuit or stockpiling oversize grain at an angle between 90° and 180°.<br><br>Weight: 4,000 kg   |

**TESAB**



Rubble Master TS3600  
**Transport System**  
**Transport Weight**

Mobile crawler gear  
17 short tons (15,000 kg)

Volumes:  
134 ft<sup>3</sup> (3.8 m<sup>3</sup>)

Tilting pre-screen:  
Separation at 4" (100 mm):  
Pivots hydraulically (optional via remote control)

### Feed Hopper

Feed Width:  
10' 6" (3,200 mm)

Feed Height:  
9' 10" (3,000 mm)

Screen Length:  
9' 10" (3,000 mm)

Screen Width:  
4' 1" (1,250 mm)

### Screen Box

Screen Angle:  
20° to 25°, hydraulically adjustable

Design:  
Number  
2 deck  
3 for fine / medium / oversize grain  
Pivot hydraulically

### Discharge Belts

Length:  
21' 4" (6,500 mm)

Discharge height:  
Manufacturer:  
Up to 13' 2" (4,000 mm)  
Deutz

### Drive Unit

Type:  
59 kW 4-cylinder diesel engine

## TS3600 MOBILE CRAWLER DUAL DECK SCREEN UNIT

**Capacity:** up to 200 t/h  
**Feeding size:** up to 250 mm  
**Feeding material:** Rubble, natural stone, asphalt, concrete  
**Transporting system:** hook lift system

**Feed hopper:** Volumes: 3.8 m<sup>3</sup>  
Tilting pre-screen: separation at 100mm, hydraulic  
tilting mechanism with radio control  
Feed width: 3200 mm  
Feed height: approx. 3000 mm

**Screen box:** Screen length: 3000 mm  
Screen width: 1250 mm  
Screen angle: 20° to 25°, hydraulically adjustable  
Design: 2 deck

**Discharge belts:** Number: 3 for fine/medium/oversize grain,  
pivot hydraulically  
Length: approx. 6500 mm  
Discharge height: up to 4000 mm

### Main Dimensions:

|  |               |
|--|---------------|
| maximum transporting length<br>(with 2 discharging belts oversize) | 11.100 mm     |
| maximum transporting height  | 3.400 mm      |
| maximum width  | 2.550 mm      |
| maximum working length   | 12.850 mm     |
| maximum working height   | 3.600 mm      |
| transporting weight  | ca. 15.500 kg |

### Diesel engine:

|                  |                      |
|------------------|----------------------|
| Type             | F4L 914 E            |
| Manufacturer     | Deutz                |
| Cubic capacity   | 3236 cm <sup>3</sup> |
| No. of cylinders | 4                    |



Back to home

Serial No. CXL2252

# The EZ-SCREEN 1200XL.

The EZ-est, Greenest Way To Double Production Without Adding Another Loader.

|                         |
|-------------------------|
| GET A QUOTE             |
| EZ-550                  |
| EZ-1000XL               |
| EZ-1200XL               |
| EZ-2200                 |
| EZ-409 TROMMEL          |
| EZ KINETIC DRIVE SYSTEM |
| WHAT EZ CUSTOMERS SAY   |
| AFTER WE WORK WE PLAY   |
| NEWS                    |
| PRODUCT BROCHURES       |
| SCREENING TIPS          |
| RESOURCES               |

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It's Simple Math: Whether they're working as topsoil screeners, [compost screens](#) or gravel screeners, ordinary box screeners can't work as hard as the EZ-Screen 1200XL, unless they're teamed with two loaders.



The secret's the EZ-Screen 1200XL's built-in conveyor system.

With a typical box screener, the loader operator has two jobs. Job one is keeping the screener filled with material. Job two is using the loader to scoop fines out of the machine and move them to the stockpile.

With the EZ-Screen 1200XL on the site, the loader operator has just one job: loading the screener. Moving fines, is handled by the 24" wide conveyor that stockpiles material as high as nine feet or into a truck. The EZ-Screen 1200XL is one of the most productive topsoil screeners out there.



That makes this the new math: One EZ-Screen 1200XL plus one loader equals a competitive screener and two loaders. In fact, [topsoil screening](#), compost screening and gravel screening yields are now dependent only on the efficiency of the loading operation. No more wasted time cleaning out fines. Other topsoil screeners don't give the same versatility and efficiency for the price. [Download the EZ-Screen 1200XL topsoil screeners product brochure now.](#)

The EZ-Screen 1200XL can be equipped with a variety of woven wire and piano screens. Making the EZ-Screen 1200XL a topsoil screener one day, a gravel screener the next and a compost screen the next. And with the optional middle product conveyor, production can be increased even more. Since it's perfect for sand, gravel and topsoil screening,



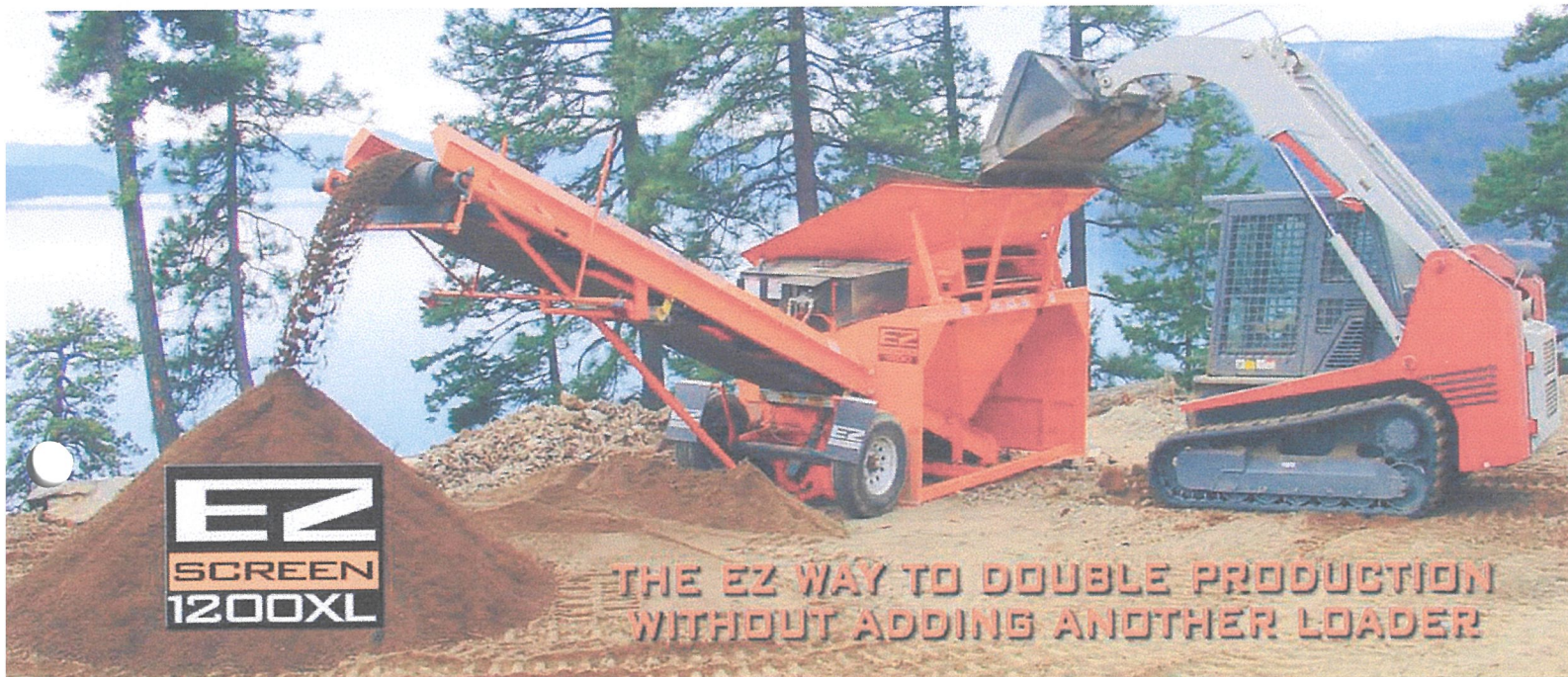
## - FEATURES -

- Loading bucket size range: ½ to 1¾ yards with a 8½' feed height
- Air-cooled 2 Cylinder ~~Kobalt diesel, 25 HP~~ **Deutz Model MD191, diesel, 19 HP, S/N 5614004**
- An hour meter and electric starting system is standard
- Exide "Spiral Wound" battery for long life in a vibratory environment
- Dual stage air filter system
- Fully enclosed, lockable engine compartment and starter panel
- Patent Pending, energy conserving, KINETIC conveyor drive
- Patented non-hydraulic screen drive
- Hydraulically driven 24" wide vulcanized "Endless" conveyor with 9' dump height
- Hydraulic drive components are by Eaton and Char-Lynn
- Conveyor components are U.S. made CEMA "B" grade
- All EZ-Screen surfaces are a baked powder coat finish
- Custom made sealed wiring harness with lights for street legal towing
- Tow hitch has safety chains, automatic safety break-away controller with battery
- Hydraulic raising and lowering tongue with 3" pintle eye/lunette ring
- 7,000 lb. capacity E-Z lube axle on rear with hydraulic activated rear pivoting assembly
- Electric brakes, 235/85R16 Load range "E" 10 ply trailer tires plus detachable mud-flaps
- **6' X 5' Screenbox** with end tensioned screens
- **NEW OPTION:** Middle Product Conveyor

\*To insure safe towing, always be certain that the tow vehicle is properly equipped.

### ARGUS INDUSTRIAL CO.

16 W. Huron • Pontiac, MI 48342  
(248) 745-5828 Fax (248) 745-5825  
[ez-screen.com](http://ez-screen.com)

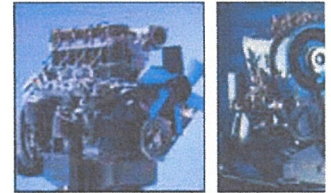




Valley carries Deutz diesel engines with power ranges of 6 to 600 HP.

Valley also offers solutions for [original equipment manufacturers](#) as well as custom packages for such applications as:

- [Agricultural Booster Pumps](#)
- [Centrifugal/Self Prime Pumps](#)
- [Ag & Dewatering/Trash Pumps](#)
- [Municipal Trash/Dewatering & Booster Pumps](#)
- [Deep Well Pump Drives](#)



## Deutz Generating Set Engines

### Diesel Engines

| Engine Type | Cyl. and Config. | Net flywheel power (kW acc. To ISO 3046) |                  |                  |                  |                  |                  | Bore/Stroke mm | Displacement | Dimensions |      |       |      |        |      | Weight kg |
|-------------|------------------|--|------------------|------------------|------------------|------------------|------------------|----------------|--------------|------------|------|-------|------|--------|------|-----------|
|             |                  | 50 Hz/1500 rpm                           |                  |                  | 60 Hz/1800 rpm   |                  |                  |                |              | Length     |      | Width |      | Height |      |           |
|             |                  | COP <sup>1</sup>                         | PRP <sup>2</sup> | LTP <sup>3</sup> | COP <sup>1</sup> | PRP <sup>2</sup> | LTP <sup>3</sup> |                |              | mm         | In   | mm    | In   | mm     | In   |           |
| F2M1008F    | 2IL              | 5.0                                      | 5.2              | 5.5              | 5.9              | 6.2              | 6.5              | 75/77.6        | 0.69         | 561        | 22.1 | 450   | 17.7 | 591    | 23.3 | 95        |
| F3M1008F    | 3IL              | 7.7                                      | 8.1              | 8.5              | 9.0              | 9.5              | 10.0             | 75/77.6        | 1.03         | 680        | 26.8 | 491   | 19.3 | 637    | 25.1 | 108       |
| F4M1008F    | 4IL              | 9.9                                      | 10.5             | 11.0             | 11.7             | 12.4             | 13.0             | 75/77.6        | 1.37         | 763        | 30.0 | 531   | 20.9 | 637    | 25.1 | 123       |
| BF4M1008    | 4IL              | 11.6                                     | 12.2             | 12.9             | 13.7             | 14.4             | 15.2             | 72/75          | 1.22         | 763        | 30.0 | 531   | 20.9 | 637    | 25.1 | 131       |
| F3L1011F    | 3IL              | 16.0                                     | 17.0             | 18.0             | 20.5             | 22.0             | 23.0             | 91/105         | 2.05         | 611        | 24.1 | 456   | 18.0 | 678    | 26.7 | 208       |
| F4L1011F    | 4IL              | 21.5                                     | 22.5             | 24.0             | 27.5             | 29.0             | 31.0             | 91/112         | 2.73         | 722        | 28.4 | 501   | 19.7 | 702    | 27.6 | 250       |
| BF4M1011F   | 4IL              | 28.5                                     | 21.0             | 32.0             | 36.0             | 38.0             | 40.0             | 91/105         | 2.73         | 722        | 28.4 | 501   | 19.7 | 702    | 27.6 | 257       |
| F3M1011F    | 3IL              | 16.8                                     | 17.6             | 18.6             | 21.3             | 22.4             | 23.6             | 91/112         | 2.18         | 905        | 35.6 | 627   | 24.7 | 696    | 27.4 | 285       |
| F4M1011F    | 4IL              | 23.4                                     | 24.5             | 25.8             | 29.2             | 31.0             | 32.0             | 91/112         | 2.91         | 1032       | 40.6 | 629   | 24.8 | 740    | 29.1 | 320       |
| BF4M1011F   | 4IL              | 33.0                                     | 34.0             | 36.0             | 40.0             | 42.0             | 44.0             | 91/112         | 2.91         | 1034       | 40.7 | 629   | 24.8 | 781    | 30.7 | 342       |
| F3L913      | 3IL              | 28.5                                     | 30.5             | 32.0             | 34.0             | 35.0             | 37.0             | 102/125        | 3.06         | 719        | 28.3 | 690   | 27.2 | 808    | 31.8 | 351       |
| BF6L913     | 6IL              | 88.0                                     | 92.0             | 97.0             | 106.0            | 110.0            | 116.0            | 102/125        | 6.13         | 1183       | 46.6 | 704   | 27.7 | 866    | 34.1 | 585       |
| BF6L913C    | 6IL              | 114.0                                    | 119.0            | 125.0            | 137.0            | 144.0            | 151.0            | 102/125        | 6.13         | 1387       | 54.6 | 704   | 27.7 | 877    | 34.5 | 610       |
| BF4M1012E   | 4IL              | 49.0                                     | 51.0             | 54.0             | 54.0             | 56.0             | 59.0             | 94/115         | 3.19         | 1069       | 42.1 | 612   | 24.1 | 859    | 33.8 | 430       |
| BF4M1012EC  | 4IL              | 61.0                                     | 64.0             | 67.0             | 67.0             | 70.0             | 74.0             | 94/115         | 3.19         | 1129       | 44.4 | 736   | 29.0 | 908    | 35.7 | 460       |
| BF4M1013E   | 4IL              | 75.0                                     | 78.0             | 83.0             | 81.0             | 85.0             | 89.0             | 108/130        | 4.76         | 1177       | 46.3 | 652   | 25.7 | 952    | 37.5 | 545       |
| BF4M1013EC  | 4IL              | 88.0                                     | 93.0             | 98.0             | 100.0            | 105.0            | 110.0            | 108/130        | 4.76         | 1318       | 51.9 | 739   | 29.1 | 1001   | 39.4 | 570       |
| BF6M1013E   | 6IL              | 114.0                                    | 120.0            | 126.0            | 122.0            | 128.0            | 134.0            | 108/130        | 7.15         | 1462       | 57.6 | 678   | 26.7 | 1052   | 41.4 | 680       |
| BF6M1013EC  | 6IL              | 135.0                                    | 142.0            | 149.0            | 148.0            | 155.0            | 163.0            | 108/130        | 7.15         | 1602       | 63.1 | 866   | 34.1 | 1140   | 44.9 | 735       |
| BF6M1015    | 6IL              | 195.0                                    | 210.0            | 231.0            | 211.0            | 228.0            | 250.0            | 132/145        | 11.90        | 976        | 38.4 | 932   | 36.7 | 1164   | 45.8 | 920       |
| BF6M1015C   | 6IL              | 250.0                                    | 285.0            | 345.0            | 271.0            | 310.0            | 341.0            | 132/145        | 11.90        | 976        | 38.4 | 932   | 36.7 | 1172   | 46.1 | 920       |



|                     |     |         |   |   |          |   |   |         |       |      |       |      |      |        |       |     |
|---------------------|-----|---------|---|---|----------|---|---|---------|-------|------|-------|------|------|--------|-------|-----|
| TBG 632<br>V12K Gas | V12 | 3000.0* | - | - | 2700.0** | - | - | 260/320 | 203.9 | 4815 | 189.6 | 2430 | 95.7 | 3141.5 | 123.7 | 185 |
| TBG 632<br>V16K Gas | V16 | 4000.0* | - | - | 3600.0** | - | - | 260/320 | 271.8 | 5665 | 223.0 | 2430 | 95.7 | 3141.5 | 123.7 | 230 |

Power reduction caused by altitude and temperature possible.

<sup>1</sup> Continuous power 100% available at flywheel, no time limitation, plus 5% (10% for engine families 616, 620) extra power for governing purposes.

<sup>2</sup> Prime power 100%, permissible average power output equal to or below 60%, no time limitation, plus 5% extra power for governing purposes. Permissible average power output equal to or below 80% for engine families 1015 resp. 616, 620, plus 10% resp. 5% extra power for governing purposes.

<sup>3</sup> Limited-time running power 100%, which can be delivered during 500 running h/a, there of max. 300 running h/a continuously overload permissible, the required extra power for governing purposes must be taken into account.

<sup>4</sup> Weights including cooling system for all engine families except for engine families 1015, 616, 620.

\*1000 rpm \*\*900 rpm

### Deutz Diesel Engines

#### Deutz Ruggerini Air-Cooled Series

##### 6-27HP

| Model      | CYL | CID | Gen Set<br>(HP@RPM) | Continuous<br>(Iv)<br>(HP@RPM) | Intermittent<br>(I)<br>(HP@RPM) | Max Torque (I)<br>(FT.LBS.@RPM) | Approx. Dimensions<br>(In.) |       |        | Weight(lbs) |
|------------|-----|-----|---------------------|--------------------------------|---------------------------------|---------------------------------|-----------------------------|-------|--------|-------------|
|            |     |     |                     |                                |                                 |                                 | Length                      | Width | Height |             |
| MD<br>75.1 | 1   | 20  | 7.2@3600            | 6.1@3600                       | 7.2@3600                        | 11.8@2300                       | 15.5                        | 16.5  | 18     | 95          |
| MD<br>95.1 | 1   | 26  | 9.5@3600            | 8.5@3600                       | 9.5@3600                        | 16.2@1600                       | 15.5                        | 16.5  | 19     | 97          |
| MD<br>151* | 2   | 40  | 16.3@3600           | 13.8@3600                      | 16.3@3600                       | 23.6@2400                       | 14                          | 14    | 18     | 110         |
| MD<br>191* | 2   | 52  | 19@3600             | 16.5@3600                      | 19@3600                         | 29.9@2400                       | 15                          | 14    | 19     | 117         |
| RD<br>218  | 2   | 58  | 12.1@1800           |                                |                                 | 36.1@1500                       | 16                          | 16    | 22     | 172         |
| RD<br>211  | 2   | 58  | 23@3600             | 19.9@3600                      | 23@3600                         | 36.1@2600                       | 16                          | 16    | 22     | 172         |
| RD<br>278  | 2   | 74  | 16@1800             |                                |                                 | 47.2@1800                       | 16                          | 16.5  | 23     | 212         |
| RD<br>270  | 2   | 74  |                     | 23.5@3600                      | 27.2@3000                       | 48.7@2200                       | 16                          | 16.5  | 23     | 212         |

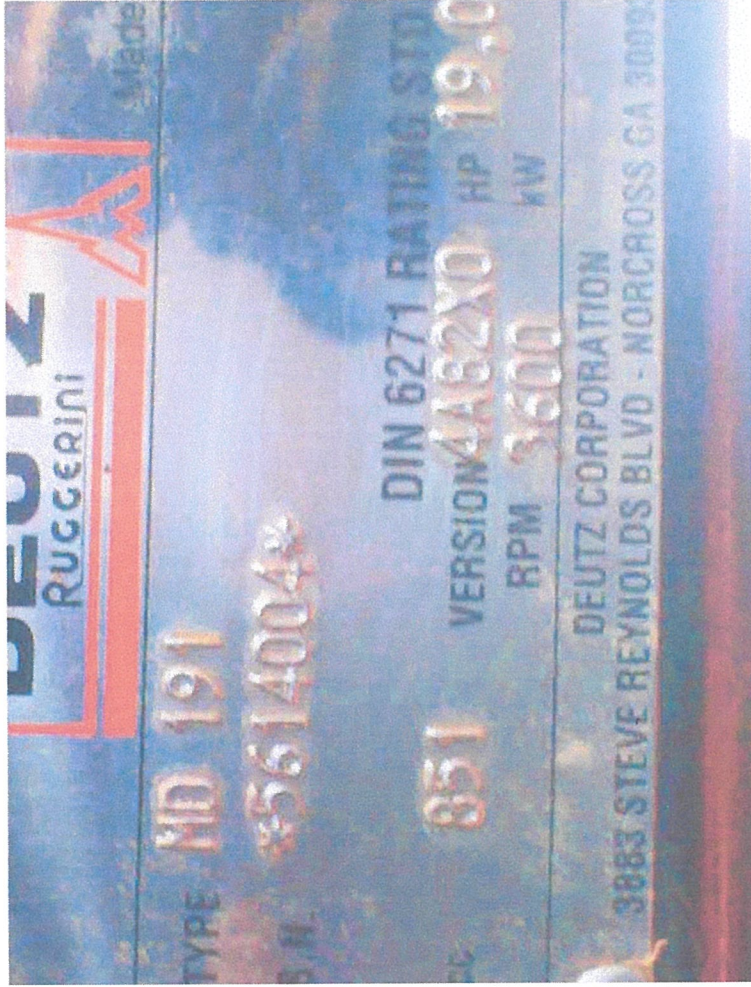
\*Available in vertical shifts.

#### FL1011F/FM1011F Oil-Cooled Series

##### 20-83 HP

| Model | CYL | CID | Gen Set | Continuous | Intermittent | Max Torque (I) | Approx. Dimensions |  |  | Weight(lbs) |
|-------|-----|-----|---------|------------|--------------|----------------|--------------------|--|--|-------------|
|-------|-----|-----|---------|------------|--------------|----------------|--------------------|--|--|-------------|

# Deutz Engine Plate



POSTMARK  
AUG 05 2019

**Application for a Significant Modification to  
Temporary Covered Source Permit No. 0839-01-CT  
(HAR 11-60.1-104)**

AUG 8 2019

**FACILITY NAME:**

**Samson Crushing and Screening Plant  
located at  
Various Temporary Sites, State of Hawaii**



Rubble Master RM90 crusher with MS95 screen



Rubble Master TS3600 screen

**OWNER:**

**SAMSON TRUCKING INC.  
87-161 Manuioioi Place  
Waianae, HI 96792**

**July 25, 2019**

**PREPARED BY:  
CFM Environmental LLC  
95-109 Waikalani Drive  
Mililani, HI 96789  
Ref. # 1906039**

## INTRODUCTION

This is an application for a significant modification to temporary covered source permit no. 0839-01-CT. Permit holder is Samson Trucking Inc., 87-161 Manuioi Place, Waianae, HI 96792. This is a temporary permit with the equipment operating at various locations, State of Hawaii.

The following modification is requested:

1. Remove the 80 TPH Compact Crusher by Rubble Master, Model RM60, Serial Number RM60-0387 from the permit. This equipment will be sold July 29<sup>th</sup>, 2019.
2. Remove the 100 TPH portable Screener by Rubble Master, Model CS2500, Serial Number 0116 from the permit. This equipment will be sold July 29<sup>th</sup>, 2019.
3. Add a 200 TPH Tracked Mobile Impact Crusher by Rubble Master, Model RM90GO, Serial Number 04-163 with attached MS95GO Screen serial no. 0163, built 2019, with John Deere Diesel Engine model 6090HFC09 Serial no. RG6090U050248
4. Add a 200 TPH Mobile Crawler Dual Deck Rubble Master Screen Model TS3600, Serial number TS600-0024, built 2008 with Deutz Diesel Engine Model F4L914E, Serial no E1 97/68GA / 2002/88 0428 00.

All existing permit conditions to remain the same.

The new equipment to be added to this permit is mobile (mounted on tracks) and the diesel engines powering the equipment are therefore exempt pursuant to HAR 11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

It is requested that all equipment permitted under this covered source permit may be operated in any combination simultaneously at the same or at different locations.

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**STANDARD PERMIT APPLICATION FORM S-1**  
**Forms C1 and C2**  
**(HAR 11-60.1-104 (a) (1))**



11. Proposed Equipment/Plant Location Address: **1730 Kittyhawk Street**  
City: **Kapolei** State: **HI** Zip Code: **96707**  
UTM Coordinates: **Zone 4 - 595,735 m East / 2,356,170 m North**
12. General Nature of Business: **Crushing and Screening**
13. Date of Planned Commencement of Construction or Modification: **upon receipt of permit**
14. Is *any* of the equipment to be leased to another individual or entity? Yes  No
15. Type of Organization:  Corporation  Individual Owner  Partnership  
Government Agency (Government Facility Code: \_\_\_\_\_)  
Other: \_\_\_\_\_

*Any applicant for a permit who fails to submit any relevant facts or who has submitted incorrect information in any permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application, but prior to the issuance of the noncovered source permit or release of a draft covered source permit. (§11-60.1-64 & 11-60.1-84)*

**RESPONSIBLE OFFICIAL** (as defined in §11-60.1-1):

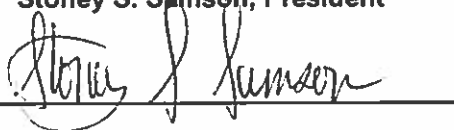
Name (Last): **Samson** (First): **Stoney** (MI): **S.**  
Title: **President** Phone: **(808) 864-1666**  
Mailing Address: **87-161 Manuoi Place**  
City: **Waianae** State: **HI** Zip Code: **96792**

**CERTIFICATION by Responsible Official** (pursuant to §11-60.1-4)

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution control, and any permit issued thereof.

NAME (Print/Type): **Stoney S. Samson, President**

(Signature):



Date:

7-25-19



COMPANY NAME: SAMSON TRUCKING INC. FILE NO: 0839-01-CT  
 LOCATION: TEMPORARY LOCATIONS, STATE OF HAWAII PAGE 1 OF 3

(Make as many copies of this page as necessary)

**EMISSIONS UNITS TABLE**

REVIEW OF APPLICATIONS AND ISSUANCE OF PERMITS WILL BE EXPEDITED BY SUPPLYING ALL NECESSARY INFORMATION ON THIS TABLE.

| AIR POLLUTANT DATA: EMISSION POINTS |          |   | AIR POLLUTANT EMISSION RATE |               |                                    | UTM COORDINATES |            |      | STACK SOURCE PARAMETERS |           |                         |        |                 |           |                         |               |
|-------------------------------------|----------|---|-----------------------------|---------------|------------------------------------|-----------------|------------|------|-------------------------|-----------|-------------------------|--------|-----------------|-----------|-------------------------|---------------|
| STACK NO.                           | UNIT NO. | EQUIPMENT NAME/ DESCRIPTION AND SIC CODE          | EQUIP DATE                  | AIR POLLUTANT | REGULATED HAZARD. AIR POLLUT. NAME | # / HOUR        | TONS/ YEAR | ZONE | EAST (M)                | NORTH (M) | HEIGHT ABOVE GROUND (M) | DIRECT | INSIDE DIA. (M) | VEL (M/S) | ACTUAL FLOW RATE (M3/S) | TEMP DEGREE K |
|                                     |          | Rubble Master RMB80GO!<br>200 TPH Impact Crusher  | 2015                        | TSP           | TSP                                | 0.870           | 3.811      | 4    | 595,                    | 2,356,    | N/A                     | N/A    | N/A             | N/A       | N/A                     | N/A           |
|                                     |          |   |                             | PM10          | PM10                               | 0.414           | 1.813      |      | 735                     | 170       |                         |        |                 |           |                         |               |
|                                     |          |   |                             | PM2.5         | PM2.5                              | 0.124           | 0.544      |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          | FUGITIVE DUST FROM STORAGE PILES & UN-PAVED ROADS |                             | TSP           | TSP                                | 3.005           | 13.161     |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             | PM10          | PM10                               | 1.204           | 5.272      |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             | PM2.5         | PM2.5                              | 0.281           | 1.232      |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |
|                                     |          |   |                             |               |                                    |                 |            |      |                         |           |                         |        |                 |           |                         |               |





## COMPLIANCE PLAN

The Responsible Official shall submit a Compliance Plan with the following permit applications, and at such other times as requested by the director.

- Initial Noncovered Source Permit Application
- Temporary Noncovered Source Permit Application
- General Noncovered Source Permit Application
- Application for a Noncovered Source Permit Renewal
- Application for a Modification to a Noncovered Source
- Initial Covered Source Permit Application
- Temporary Covered Source Permit Application
- General Covered Source Permit Application
- Application for a Covered Source Permit Renewal
- Application for a Minor Modification to a Covered Source

1. Compliance status with respect to all Applicable Requirements:

Will your facility be in compliance, or Is your facility in compliance, with all applicable requirements in effect at the time of your permit application submittal?

**YES** {If YES, complete items a and c below}

{If NO, complete items a-c below}

a. Identify all applicable requirement(s) for which compliance is achieved:

- Hawaii Administrative Rules (HAR) Title 11**
- 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**
- Subchapter 5, Covered Sources**
- Subchapter 6, Fees for Covered Sources**
- 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**
- 40 Code of Federal Regulations (CFR) Part 60 – Standards of Performance for New Stationary Sources (NSPS)**
- Subpart 000 – Standards of Performance for Nonmetallic Mineral Processing Plants**

Provide a statement that the source is in compliance and will continue to comply with all such requirements.

**SAMSON TRUCKING INC. states that the plant to be covered under this application will be in compliance with all the above applicable requirements.**

b. Identify all applicable requirement(s) for which compliance is NOT achieved:

N/A

Provide a detailed Schedule of Compliance and a description of how the source will achieve compliance with all such applicable requirements. Use separate sheets of paper, if necessary.

| <u>Description of Remedial Action</u> | <u>Expected Date</u> | <u>of Completion</u> |
|---------------------------------------|----------------------|----------------------|
|---------------------------------------|----------------------|----------------------|

N/A

c. Identify any other applicable requirement(s) with a future compliance date that your source is subject to. These applicable requirements may be in effect AFTER permit issuance:

| <u>Applicable Requirement</u> | <u>Effective</u> | <u>Currently in</u> |
|-------------------------------|------------------|---------------------|
|                               | <u>Date</u>      | <u>Compliance?</u>  |

N/A

If the source is not currently in compliance, submit a Schedule of Compliance and a description of how the source will achieve compliance with all such applicable requirements:

| <u>Description of</u>        | <u>Expected Date</u> |
|------------------------------|----------------------|
| <u>Proposed Action/Steps</u> | <u>of Achieving</u>  |
| <u>to Achieve Compliance</u> | <u>Compliance</u>    |

N/A

Provide a statement that the source on a timely basis will meet all these applicable requirements.

N/A

If the expected date of achieving compliance will NOT meet the applicable requirement's effective date, provide a more detailed description of all remedial actions and the expected dates of completion.

| <u>Description of Remedial Action</u> | <u>Expected Date</u> | <u>of Completion</u> |
|---------------------------------------|----------------------|----------------------|
|---------------------------------------|----------------------|----------------------|

N/A

2. Compliance Progress Reports:

a. If a compliance plan is being submitted to remedy a violation, complete the following information:

Frequency of Submittal: \_\_\_\_\_ Beginning Date: \_\_\_\_\_  
(less than or equal to 6 months)

b. Date(s) that the Action described in (1)(b) was achieved: \_\_\_\_\_  
Remedial Action Date Achieved

N/A

c. Narrative description of why any date(s) in (1)(b) was not met, and any preventive or corrective measures taken in the interim:

N/A

***Certification of Compliance with all Applicable Requirements:***

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

Name (Print/Type): **Stoney S. Samson, President**

(Signature): 

Date: 7-25-19

### COMPLIANCE CERTIFICATION

The Responsible Official shall submit a Compliance Certification with the following covered source permit applications, and at such other times as requested by the director. (Complete as many copies of this form as necessary).

- Initial Covered Source Permit Application;
- Temporary Covered Source Permit Application;
- General Covered Source Permit Application;
- Application for a Covered Source Permit Renewal; and
- X Application for a Significant Modification to a Covered Source.

During the term of a covered source permit, the responsible official shall also submit a Compliance Certification to the director and the Administrator at least every six months, or more frequently as set by an applicable requirement.

INITIAL COVERED SOURCE PERMIT APPLICATION: COMPLETE & SUBMIT THIS COVER PAGE AND SECTION A OF THIS FORM.

DURING THE TERM OF A COVERED SOURCE PERMIT: COMPLETE & SUBMIT THIS COVER PAGE AND SECTION B OF THIS FORM.

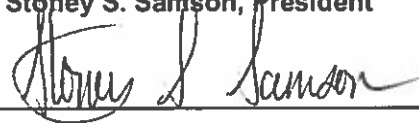
#### ***Certification of Compliance with all Applicable Requirements:***

This certification must be signed by a Responsible Official. Applications without a signed certification will be deemed incomplete.

I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record. I further state that I will assume responsibility for the construction, modification, or operation of the source in accordance with the Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution control, and any permit issued thereof.

Name (Print/Type): **Stoney S. Samson, President**

(Signature):



Date:

7-25-19

Complete the following information for **each** applicable requirement and/or term or condition of the permit that applies to **each** emissions unit at the source. Also include any additional information as required by the director. The compliance certification may reference information contained in a previous compliance

certification submittal to the director, provided such referenced information is certified as being current and still applicable.

**A. For compliance certifications submitted with any covered source permit application.**

1. Schedule for submission of Compliance Certifications during the term of the permit:  
Frequency of Submittal: **Annual**                      Beginning Date: **upon issuance of permit**
  
2. Emissions Unit No./Description: **200 TPH RM80GO! Impact Crusher, 200 TPH RM90 Impact Crusher, 200 TPH CH3050 Stacker Conveyor, 200 TPH TS3600 Screen**
  
3. Identify the applicable requirement(s) that is/are the basis of this certification:

**Hawaii Administrative Rules (HAR) Title 11**  
**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**  
**Subchapter 5, Covered Sources**  
**Subchapter 6, Fees for Covered Sources**  
**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**  
**40 Code of Federal Regulations (CFR) Part 60 – Standards of Performance for New Stationary Sources (NSPS)**  
**Subpart 000 – Standards of Performance for Nonmetallic Mineral Processing Plants**

4. Compliance status:
  - a. Will the emissions unit be in compliance with the identified applicable requirement(s)?  

YES                       NO
  - b. If YES, will compliance be continuous or intermittent?  

Continuous                       Intermittent
  - c. If NO, explain.
  
5. The methods to be used in determining compliance of the emissions unit with the applicable requirement(s), including any monitoring, recordkeeping, reporting requirements, and/or test methods:



**Annual Source Test**  
**Daily Visual Observations**  
**Monthly Visual Observation by certified reader**

Provide a detailed description of the methods used to determine compliance: (e.g. monitoring device , type and location, test method description, or parameter being recorded, frequency of recordkeeping, etc.)

**Daily Visual Checks**  
**Application of Water Sprays**  
**Record Keeping**  
**Semi-Annual and Annual Emissions Report**

6. Statement of Compliance with Enhanced Monitoring and Compliance Certification Requirements.

a. Will the emissions unit identified in this application be in compliance with applicable enhanced monitoring and compliance certification requirements?

N/A            ◊ YES            ◊ NO

b. If YES, identify the requirements and the provisions being taken to achieve compliance:

N/A

c. If NO, describe below which requirements will not be met:

N/A

|                              |       |
|------------------------------|-------|
| <b>FOR AGENCY USE ONLY:</b>  |       |
| <b>File/Application No.:</b> | _____ |
| <b>Island:</b>               | _____ |
| <b>Date Received:</b>        | _____ |

**APPLICATION FOR SIGNIFICANT MODIFICATION TO TEMPORARY COVERED**  
**SOURCE PERMIT NO. 0839-01-CT**  
**(HAR 11-60.1-104)**

**HAR 11-60.104 (a) (1)**

All information requested in paragraph (1) is noted in the Standard Permit Application Form on page 5.

**HAR 11-60.104 (a) (2) Description of significant modification**

1. Remove the 80 TPH Compact Crusher by Rubble Master, Model RM60, Serial Number RM60-0387 from the permit. This equipment has been sold.
2. Remove the 100 TPH portable Screener by Rubble Master, Model CS2500, Serial Number 0116 from the permit. This equipment has been sold.
3. Add a 200 TPH Tracked Mobile Impact Crusher by Rubble Master, Model RM90GO, Serial Number 04-163 with attached MS95GO Screen serial no. 0163, built 2019, with John Deere Diesel Engine model 6090HFC09 Serial no. RG6090U050248
4. Add a 200 TPH Mobile Crawler Dual Deck Rubble Master Screen Model TS3600, Serial number TS600-0024, built 2008 with Deutz Diesel Engine Model F4L914E, Serial no E1 97/68GA / 2002/88 0428 00.

There are no changes to operations (except for using the new equipment), work practices, source emissions (except additional emissions from new equipment), monitoring, record-keeping, or reporting procedures.

**HAR 11-60.104 (a) (3) Equipment Description**

After removing the equipment indicated in 1 & 2 above, the following equipment remains covered under this permit:

**Crusher:**

|                      |                            |
|----------------------|----------------------------|
| Manufacturer         | : Rubble Master            |
| Year Manufactured    | : 2015                     |
| Model Number         | : RM80GO!                  |
| Serial Number        | : RM80GO!-00.205           |
| Max. Production      | : 200 TPH                  |
| Powered by           | : John Deere Diesel Engine |
| Engine Model         | : 6068HF485                |
| Engine Serial Number | : CD6068L300003            |

Stacker Conveyor

Manufacturer : The Screen Machine  
Year Manufactured : 2015  
Model Number : CH3050  
Serial Number : CH3050-D-AF2964  
Max. Production : 200 TPH  
Powered by : Yanmar Diesel Engine  
Engine Model : 4TNV88-BDSAT  
Engine Serial Number : V4335

New Equipment to be added with this modification:

Crusher:

Manufacturer : Rubble Master  
Year Manufactured : 2019  
Model Number : RM90GO  
Serial Number : 04-163  
Max. Production : 200 TPH  
Powered by : John Deere Diesel Engine  
Engine Model : 6090HFC09  
Engine Serial Number : RG6090U050248

With attached screen

Manufacturer : Rubble Master  
Year Manufactured : 2019  
Model Number : MS95GO  
Serial Number : 0163  
Max. Production : 200 TPH  
Powered by : Crusher

Screen:

Manufacturer : Rubble Master  
Year Manufactured : 2008  
Model Number : TS3600  
Serial Number : 04-163  
Max. Production : 200 TPH  
Powered by : Deutz Diesel Engine  
Engine Model : F4L914E  
Engine Serial Number : E1 97/68GA / 2002/88 0428 00

All above equipment is mobile (mounted on tracks) and the diesel engines powering the equipment are therefore exempt pursuant to HAR 11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

Equipment information on the new equipment to be added to this permit can be found in Appendix C.

This modification does not change the Standard Industrial Classification Code indicated on the Standard Permit Application Form, nor does it change the processes or products indicated in the initial covered source permit application on file at the Department of Health, Clean Air Branch under file no. 0839.

#### **HAR 11-60.104 (a) (4) Emissions Trading**

Emissions trading does not apply to this permit and/or modification.

#### **HAR 11-60.104 (a) (5) Maximum Emission Rates**

The emissions from the existing crusher and additional crusher and screener consist of fugitive dust. The following material transfer points are considered:

For crushers:

1. Hopper filling
2. Hopper to crusher
3. crusher to product conveyor
4. Product conveyor to stockpile (or stacker conveyor)

For screeners:

1. Hopper filling
2. Screening Deck
3. Conveyor belts to stockpiles

The diesel engines for all equipment are exempt since all equipment is mobile (mounted on tracks) with the diesel engines propelling the equipment. The diesel engines are therefore exempt pursuant to HAR 11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

Emissions from the diesel engine is therefore not considered when calculating maximum emissions from the plant.

Maximum emission calculations for fugitive dust from the horizontal impact crusher are based on EPA AP42, tables 11.19.2-2, 8/04, 13.2.4, 11/06, 13.2.2, 11/06, and CEIDARS table PM2.5 fractions for Mineral Products, Crushing, Screening, Blasting, Loading and Unloading; on the maximum throughput of each equipment as indicated by the manufacturer; and on 8760 hours/year since there are no hour limitations requested with this application.

Maximum uncontrolled emissions are reduced by a 70% control factor since water sprays and (if applicable) a water truck are used to control fugitive dust.

For emission rates and calculation of maximum emissions in lbs/hour and tpy, please see Appendix B, Emission Calculations.

#### **HAR 11-60.104 (a) (6) Identification of Points of Emission**

All emissions are fugitive in nature. Since all the diesel engines are exempt, there are no points of emission from the diesel engines.

#### **HAR 11-60.104 (a) (7) Air Pollution Control**

The crushers are equipped with a dust suppression system.

Spray bars with atomizer nozzles are mounted at the crusher and the discharge point.

Illustration of dust suppression system from Rubble Master:



When the crusher is operating, the plant area and the stockpile dust is controlled either by a water truck, or if available, water from a water hydrant or municipal water supply. The use of water to control fugitive emissions results in a reduction of 70% of emissions, as per AP42.

The dust suppression system is considered best available control technology (BACT) for crushers.

Screeners are usually not equipped with water sprays since material that is too wet will clog the screens. Dust is controlled by the operator by keeping the feed material moist enough not to create dust.

### **HAR 11-60.104 (a) (8) Applicable Requirements**

Hawaii Administrative Rules (HAR) Title 11  
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  
    Subchapter 5, Covered Sources  
    Subchapter 6, Fees for Covered Sources  
        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  
40 Code of Federal Regulations (CFR) Part 60 – Standards of Performance for  
    New Stationary Sources (NSPS)  
    Subpart 000 – Standards of Performance for Nonmetallic Mineral  
        Processing Plants

The test method to determine compliance is Method 9 of 40 CFR Part 60, Appendix A-4, using a certified reader.

### **HAR 11-60.104 (a) (9) Operational Limitations or Work Practices**

No operating limits are requested with this permit application.

The plants operate irregularly, with operation depending on job situation and demand.

When operating, the plants typically operate 8 hours per day, 5 days per week.

**HAR 11-60.104 (a) (10) Calculations and Assumptions**

Maximum emission calculations for fugitive dust from the crushers and the screens are based on EPA AP42, tables 11.19.2-2, 8/04, 13.2.4, 11/06, 13.2.2, 11/06, and CEIDARS table PM2.5 fractions for Mineral Products, Crushing, Screening, Blasting, Loading and Unloading; on the maximum throughput of the plants as indicated by the manufacturer, and on 8760 hours/year since there are no hour limitations requested with this application.

Maximum uncontrolled emissions are reduced by a 70% control factor since water sprays and (if applicable) a water truck are used to control fugitive dust.

For emission calculations please see Appendix B. For manufacturer information regarding plant throughput, please see Appendix C and information already on file at the Department of Health, Clean Air Branch under file 0839.

| <b>Total Emissions for all crushers and screeners and Trigger Levels (TPY)</b> |                                    |                                |                        |                   |  |
|--|------------------------------------|--------------------------------|------------------------|-------------------|--|
| <b>Pollutant</b>   | <b>Plant Emissions (No Limits)</b> | <b>BACT Significant Levels</b> | <b>AERR Thresholds</b> | <b>DOH Levels</b> | <b>Wind Erosion And Vehicle Travel Emissions</b> |
| CO   | 0                                  | 100                            | 1000                   | 250               | 0  |
| NO <sub>x</sub>  | 0                                  | 40                             | 100                    | 25                | 0  |
| SO <sub>2</sub>  | 0                                  | 40                             | 100                    | 25                | 0  |
| PM   | <b>26.307</b>                      | 25                             | -                      | 25                | <b>39.483</b>                                    |
| PM10   | <b>10.249</b>                      | 15                             | 100                    | 25                | <b>15.816</b>                                    |
| PM2.5  | <b>3.074</b>                       | 10                             | 100                    | -                 | <b>3.696</b>                                     |
| VOC  | 0                                  | 40                             | 100                    | 25                | 0  |
| HAPs   | 0                                  | -                              | -                      | 5                 | 0  |

**Emission increase due to modification:**

| <b>Pollutant</b> | <b>Total Plant Emissions existing permit (TPY)</b> | <b>Total Plant Emissions modified permit (TPY)</b> | <b>Emission Increase (TPY)</b> |
|------------------|--|--|--------------------------------|
| TSP              | 9.422  | 26.307   | <b>16.885</b>                  |
| PM10             | 3.984  | 10.249   | <b>6.265</b>                   |
| PM2.5            | 1.195  | 3.074  | <b>1.879</b>                   |

| <b>Pollutant</b> | <b>Total Wind Erosion &amp; Unpaved Road Emissions existing permit (TPY)</b> | <b>Total Wind Erosion &amp; Unpaved Road Emissions modified permit (TPY)</b> | <b>Emission Increase (TPY)</b> |
|------------------|--|--|--------------------------------|
| TSP              | 25.007   | 39.483   | <b>14.476</b>                  |
| PM10             | 10.017   | 15.816   | <b>5.799</b>                   |
| PM2.5            | 2.341  | 3.696  | <b>1.355</b>                   |

#### **HAR 11-60.104 (a) (11) Schedule for Construction**

The additional equipment to be added to this permit is shipped to Hawaii already fully constructed. It will be operated as soon as the modified permit is issued by the Department of Health, Clean Air Branch.

#### **HAR 11-60.104 (a) (12) Assessment of Ambient Air Quality Impact**

Since all the diesel engines covered by this permit are exempt, there are no point sources. All emissions are fugitive in nature. Department of Health, Clean Air Branch air modeling guidance generally does not require an ambient air quality analysis for fugitive emissions.

#### **HAR 11-60.104 (a) (13) Subchapter 7 Applicability**

Not Applicable

#### **HAR 11-60.104 (a) (14) Risk Assessment**

The applicant will submit a risk assessment of the air quality related impacts caused by the new covered source if requested by the Director.

#### **HAR 11-60.104 (a) (15) Source Emission Testing**

No source emission testing has been conducted for the equipment to be added to this permit, but applicant will do so if requested by the Director.

#### **HAR 11-60.104 (a) (16) Other Available Control Technologies**

To the best knowledge of the applicant, no other or better control technologies are available.

#### **HAR 11-60.104 (a) (17) Exemptions from Applicable Requirements**

There are no exemptions from applicable requirements.



**HAR 11-60.104 (a) (18) Insignificant Activities**

Insignificant activities are as follows:

Equipment Diesel Fuel Tanks  
Equipment Hydraulic Oil Tanks

**HAR 11-60.104 (a) (19) Compliance Plan**

See section standard permit application forms, compliance plan on page 10.

**HAR 11-60.104 (a) (20) Compliance Certification**

See section standard permit application forms, compliance certification on page 13.

**HAR 11-60.104 (a) (21) Other Information**

There is no other information.

**HAR 11-60.1-113 (b) (4) (J) Fees**

**APPLICATION FEE**

The application fee of \$ 500.00 for a significant modification to a non-toxic temporary covered source permit is enclosed. HAR 11-60.1-113 (b) (4) (J).

**Date:** \_\_\_\_\_ **Check Number:** \_\_\_\_\_

**Made payable to: "Clean Air Special Fund – COV"**

**APPENDIX A**

**LOCATION & SITE MAPS**

**Samson Trucking Inc. Yard:  
1730 Kittyhawk Street  
Kapolei, HI 96707**

**UTM Coordinates:  
Zone 4  
595,735 m East  
2,356,170 m North**

**Location information is on file at Department of Health,  
Clean Air Branch under file 0839-01-CT**

**APPENDIX B**

**POTENTIAL ANNUAL EMISSIONS CALCULATIONS**

**Maximum Annual Fugitive Dust Emissions  
For Existing Plant**

The following information is copied from the original permit application for permit no. 0839-01-CT and serves only as calculation basis to compare emissions before and after modification.

**Maximum Plant Emissions for all three plants presently covered under permit no. 0839-01-CT:**

**Controlled Particulate Matter (TSP) :**

| Plant                   | TSP: Lbs/hour | TSP: tpy     |
|-------------------------|---------------|--------------|
| 200 TPH Impact Crusher  | 0.870         | 3.811        |
| 80 TPH Impact Crusher   | 0.356         | 1.524        |
| 100 TPH Screening Plant | 0.933         | 4.087        |
| <b>Total</b>            | <b>2.159</b>  | <b>9.422</b> |

**Maximum Wind Erosion and Vehicle Travel Emissions for all three plants:  
Controlled Particulate Matter (TSP) :**

| Plant                   | TSP: Lbs/hour | TSP: tpy      |
|-------------------------|---------------|---------------|
| 200 TPH Impact Crusher  | 3.005         | 13.161        |
| 80 TPH Impact Crusher   | 1.202         | 5.265         |
| 100 TPH Screening Plant | 1.502         | 6.581         |
| <b>Total</b>            | <b>5.709</b>  | <b>25.007</b> |

**Maximum Plant Emissions for all three plants: Controlled Particulate Matter (PM10) :**

| Plant                   | PM10: Lbs/hour | PM10: tpy    |
|-------------------------|----------------|--------------|
| 200 TPH Impact Crusher  | 0.414          | 1.813        |
| 80 TPH Impact Crusher   | 0.166          | 0.725        |
| 100 TPH Screening Plant | 0.330          | 1.446        |
| <b>Total</b>            | <b>0.910</b>   | <b>3.984</b> |

**Maximum Wind Erosion and Vehicle Travel Emissions for all three plants:  
Controlled Particulate Matter (PM10) :**

| Plant                   | PM10: Lbs/hour | PM10: tpy     |
|-------------------------|----------------|---------------|
| 200 TPH Impact Crusher  | 1.204          | 5.272         |
| 80 TPH Impact Crusher   | 0.481          | 2.109         |
| 100 TPH Screening Plant | 0.602          | 2.636         |
| <b>Total</b>            | <b>2.287</b>   | <b>10.017</b> |

**Maximum Plant Emissions for all three plants: Controlled Particulate Matter (PM2.5) :**

| Plant                   | PM2.5: Lbs/hour | PM2.5: tpy   |
|-------------------------|-----------------|--------------|
| 200 TPH Impact Crusher  | 0.124           | 0.544        |
| 80 TPH Impact Crusher   | 0.050           | 0.218        |
| 100 TPH Screening Plant | 0.099           | 0.433        |
| <b>Total</b>            | <b>0.273</b>    | <b>1.195</b> |

**Maximum Wind Erosion and Vehicle Travel Emissions for all three plants: Controlled Particulate Matter (PM2.5) :**

| Plant                   | PM2.5: Lbs/hour | PM2.5: tpy   |
|-------------------------|-----------------|--------------|
| 200 TPH Impact Crusher  | 0.281           | 1.232        |
| 80 TPH Impact Crusher   | 0.097           | 0.493        |
| 100 TPH Screening Plant | 0.140           | 0.616        |
| <b>Total</b>            | <b>0.518</b>    | <b>2.341</b> |

The following calculations are the emission calculations for the modified plant. The calculations include the existing 200 tph RM80GO crusher, the new added RM90GO crusher with screen, and the new TS3600 screen. There are no emission calculations for the CH3050 stacker conveyor since it is running as an extension from the crusher and the emissions are already calculated with the crusher. The RM60 crusher and the CS2500 screen permitted with permit 0839-01-CT have been sold and have been eliminated from the emission calculations.

**Maximum Annual Fugitive Dust Emissions**  
**For existing**  
**200 TPH RM80GO! Impact Crusher**

**Calculation Basis:**

Maximum Processing rate : 200 TPH

Operating hours: 8760 hours/year

Emission Factors: AP 42 (11.19.2-2, 8/04, 13.2.4, 11/06, 13.2.2, 11/06)

**Controlled Fugitive Emissions of Particulate Matter (TSP):**

| Activity                             | SCC         | (lb/hr)      | (tpy)         |
|--------------------------------------|-------------|--------------|---------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.480        | 2.102         |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06 | 2.400        | 10.512        |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.020        | 0.088         |
| <b>Total uncontrolled</b>            |             | <b>2.900</b> | <b>12.702</b> |
| Less Control 70%                     |             | 2.030        | 8.891         |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.870</b> | <b>3.811</b>  |

|                            |  |               |               |
|----------------------------|--|---------------|---------------|
|                            |  |               |               |
| Storage Piles uncontrolled |  | 5.672         | 24.842        |
| Unpaved Roads              |  | 4.345         | 19.029        |
| <b>Total uncontrolled</b>  |  | <b>10.017</b> | <b>43.871</b> |
| Less Control 70%           |  | 7.012         | 30.710        |
| <b>TOTAL CONTROLLED</b>    |  | <b>3.005</b>  | <b>13.161</b> |

**Controlled Fugitive Emissions of Particulate Matter (PM10):**

| Activity                             | SCC         | (lb/hr)      | (tpy)         |
|--------------------------------------|-------------|--------------|---------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.480        | 2.102         |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06 | 0.880        | 3.854         |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.020        | 0.088         |
| <b>Total uncontrolled</b>            |             | <b>1.380</b> | <b>6.044</b>  |
| Less Control 70%                     |             | 0.966        | 4.231         |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.414</b> | <b>1.813</b>  |
|                                      |             |              |               |
| Storage Piles uncontrolled           |             | 2.683        | 11.750        |
| Unpaved Roads                        |             | 1.330        | 5.825         |
| <b>Total uncontrolled</b>            |             | <b>4.013</b> | <b>17.575</b> |
| Less Control 70%                     |             | 2.809        | 12.303        |
| <b>TOTAL CONTROLLED</b>              |             | <b>1.204</b> | <b>5.272</b>  |

**Controlled Fugitive Emissions of Particulate Matter (PM2.5):**

| Activity                             | SCC         | (lb/hr)      | (tpy)        |
|--------------------------------------|-------------|--------------|--------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.144        | 0.631        |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06 | 0.264        | 1.156        |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.006        | 0.026        |
| <b>Total uncontrolled</b>            |             | <b>0.414</b> | <b>1.813</b> |
| Less Control 70%                     |             | 0.290        | 1.269        |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.124</b> | <b>0.544</b> |
|                                      |             |              |              |
| Storage Piles uncontrolled           |             | 0.805        | 3.525        |
| Unpaved Roads                        |             | 0.133        | 0.583        |
| <b>Total uncontrolled</b>            |             | <b>0.938</b> | <b>4.108</b> |
| Less Control 70%                     |             | 0.657        | 2.876        |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.281</b> | <b>1.232</b> |

**Maximum Annual Fugitive Dust Emissions**  
**For new**  
**200 TPH RM90GO Impact Crusher with Screen**

**Calculation Basis:**

Maximum Processing rate : 200 TPH

Operating hours: 8760 hours/year

Emission Factors: AP 42 (11.19.2-2, 8/04, 13.2.4, 11/06, 13.2.2, 11/06)

**Controlled Fugitive Emissions of Particulate Matter (TSP):**

| Activity                             | SCC         | (lb/hr)       | (tpy)         |
|--------------------------------------|-------------|---------------|---------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.480         | 2.102         |
| Screening                            | 3-05-020-02 | 5.000         | 21.900        |
| Conveyor Transfer Point uncontr. (7) | 3-05-020-06 | 4.200         | 18.396        |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.020         | 0.088         |
| <b>Total uncontrolled</b>            |             | <b>9.700</b>  | <b>42.486</b> |
| Less Control 70%                     |             | 6.790         | 29.740        |
| <b>TOTAL CONTROLLED</b>              |             | <b>2.910</b>  | <b>12.746</b> |
|                                      |             |               |               |
| Storage Piles uncontrolled           |             | 5.672         | 24.842        |
| Unpaved Roads                        |             | 4.345         | 19.029        |
| <b>Total uncontrolled</b>            |             | <b>10.017</b> | <b>43.871</b> |
| Less Control 70%                     |             | 7.012         | 30.710        |
| <b>TOTAL CONTROLLED</b>              |             | <b>3.005</b>  | <b>13.161</b> |

**Controlled Fugitive Emissions of Particulate Matter (PM10):**

| Activity                             | SCC         | (lb/hr)      | (tpy)         |
|--------------------------------------|-------------|--------------|---------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.480        | 2.102         |
| Screening                            | 3-05-020-02 | 1.740        | 7.621         |
| Conveyor Transfer Point uncontr. (7) | 3-05-020-06 | 1.540        | 6.745         |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.020        | 0.088         |
| <b>Total uncontrolled</b>            |             | <b>3.780</b> | <b>16.556</b> |
| Less Control 70%                     |             | 2.646        | 11.589        |
| <b>TOTAL CONTROLLED</b>              |             | <b>1.134</b> | <b>4.967</b>  |
|                                      |             |              |               |
| Storage Piles uncontrolled           |             | 2.683        | 11.750        |
| Unpaved Roads                        |             | 1.330        | 5.825         |
| <b>Total uncontrolled</b>            |             | <b>4.013</b> | <b>17.575</b> |
| Less Control 70%                     |             | 2.809        | 12.303        |
| <b>TOTAL CONTROLLED</b>              |             | <b>1.204</b> | <b>5.272</b>  |



**Controlled Fugitive Emissions of Particulate Matter (PM2.5):**

| Activity                             | SCC         | (lb/hr)      | (tpy)        |
|--------------------------------------|-------------|--------------|--------------|
| Primary Crushing uncontrolled        | 3-05-020-01 | 0.144        | 0.631        |
| Screening                            | 3-05-020-02 | 0.522        | 2.286        |
| Conveyor Transfer Point uncontr. (7) | 3-05-020-06 | 0.462        | 2.024        |
| Truck unloading uncontrolled         | 3-05-020-32 | 0.006        | 0.026        |
| <b>Total uncontrolled</b>            |             | <b>1.134</b> | <b>4.967</b> |
| Less Control 70%                     |             | 0.794        | 3.477        |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.340</b> | <b>1.490</b> |
|                                      |             |              |              |
| Storage Piles uncontrolled           |             | 0.805        | 3.525        |
| Unpaved Roads                        |             | 0.133        | 0.583        |
| <b>Total uncontrolled</b>            |             | <b>0.938</b> | <b>4.108</b> |
| Less Control 70%                     |             | 0.657        | 2.876        |
| <b>TOTAL CONTROLLED</b>              |             | <b>0.281</b> | <b>1.232</b> |

**Maximum Annual Fugitive Dust Emissions**  
**For new**  
**200 TPH Rubble Master TS3600 Screening Plant**

**Calculation Basis:**

Maximum Processing rate : 200 TPH  
 Operating hours: 8760 hours/year  
 Emission Factors: AP 42 (11.19.2-2, 8/04, 13.2.4, 11/06, 13.2.2, 11/06)

**Controlled Fugitive Emissions of Particulate Matter (TSP):**

| Activity                             | SCC           | (lb/hr)       | (tpy)         |
|--------------------------------------|---------------|---------------|---------------|
| Screening uncontrolled               | 3-05-02002,03 | 5.000         | 21.900        |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06   | 2.400         | 10.512        |
| Truck unloading uncontrolled         | 3-05-020-32   | 0.020         | 0.088         |
| <b>Total uncontrolled</b>            |               | <b>7.420</b>  | <b>32.500</b> |
| Less Control 70%                     |               | 5.194         | 22.750        |
| <b>TOTAL CONTROLLED</b>              |               | <b>2.226</b>  | <b>9.750</b>  |
|                                      |               |               |               |
| Storage Piles uncontrolled           |               | 5.672         | 24.842        |
| Unpaved Roads                        |               | 4.345         | 19.029        |
| <b>Total uncontrolled</b>            |               | <b>10.017</b> | <b>43.871</b> |
| Less Control 70%                     |               | 7.012         | 30.710        |
| <b>TOTAL CONTROLLED</b>              |               | <b>3.005</b>  | <b>13.161</b> |

**Controlled Fugitive Emissions of Particulate Matter (PM10):**

| Activity                             | SCC           | (lb/hr)      | (tpy)         |
|--------------------------------------|---------------|--------------|---------------|
| Screening uncontrolled               | 3-05-02002,03 | 1.740        | 7.621         |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06   | 0.880        | 3.854         |
| Truck unloading uncontrolled         | 3-05-020-32   | 0.020        | 0.088         |
| <b>Total uncontrolled</b>            |               | <b>2.640</b> | <b>11.563</b> |
| Less Control 70%                     |               | 1.848        | 8.094         |
| <b>TOTAL CONTROLLED</b>              |               | <b>0.792</b> | <b>3.469</b>  |
|                                      |               |              |               |
| Storage Piles uncontrolled           |               | 2.683        | 11.750        |
| Unpaved Roads                        |               | 1.330        | 5.825         |
| <b>Total uncontrolled</b>            |               | <b>4.013</b> | <b>17.575</b> |
| Less Control 70%                     |               | 2.809        | 12.303        |
| <b>TOTAL CONTROLLED</b>              |               | <b>1.204</b> | <b>5.272</b>  |

**Controlled Fugitive Emissions of Particulate Matter (PM2.5):**

| Activity                             | SCC           | (lb/hr)      | (tpy)        |
|--------------------------------------|---------------|--------------|--------------|
| Screening uncontrolled               | 3-05-02002,03 | 0.522        | 2.286        |
| Conveyor Transfer Point uncontr. (4) | 3-05-020-06   | 0.264        | 1.156        |
| Truck unloading uncontrolled         | 3-05-020-32   | 0.006        | 0.026        |
| <b>Total uncontrolled</b>            |               | <b>0.792</b> | <b>3.468</b> |
| Less Control 70%                     |               | 0.554        | 2.428        |
| <b>TOTAL CONTROLLED</b>              |               | <b>0.238</b> | <b>1.040</b> |
|                                      |               |              |              |
| Storage Piles uncontrolled           |               | 0.805        | 3.525        |
| Unpaved Roads                        |               | 0.133        | 0.583        |
| <b>Total uncontrolled</b>            |               | <b>0.938</b> | <b>4.108</b> |
| Less Control 70%                     |               | 0.657        | 2.876        |
| <b>TOTAL CONTROLLED</b>              |               | <b>0.281</b> | <b>1.232</b> |

Note: Storage Pile and Unpaved Road Emissions are the same for each of the three plants since each one of them is rated at 200 tph.

**Calculation of Total Controlled Emissions for Modified Plant**

**Plant Emissions TSP**

| Plant                              | TSP: Lbs/hour | TSP: tpy      |
|------------------------------------|---------------|---------------|
| 200 TPH RM80GO Crusher             | 0.870         | 3.811         |
| 200 TPH RM90GO Crusher with Screen | 2.910         | 12.746        |
| 200 TPH TS3600 Screen              | 2.226         | 9.750         |
| <b>Total</b>                       | <b>6.006</b>  | <b>26.307</b> |

**Wind Erosion and Unpaved Road Emissions TSP**

| Plant                              | TSP: Lbs/hour | TSP: tpy      |
|------------------------------------|---------------|---------------|
| 200 TPH RM80GO Crusher             | 3.005         | 13.161        |
| 200 TPH RM90GO Crusher with Screen | 3.005         | 13.161        |
| 200 TPH TS3600 Screen              | 3.005         | 13.161        |
| <b>Total</b>                       | <b>9.015</b>  | <b>39.483</b> |

**Plant Emissions PM10**

| Plant                              | PM10: Lbs/hour | PM10: tpy     |
|------------------------------------|----------------|---------------|
| 200 TPH RM80GO Crusher             | 0.414          | 1.813         |
| 200 TPH RM90GO Crusher with Screen | 1.134          | 4.967         |
| 200 TPH TS3600 Screen              | 0.792          | 3.469         |
| <b>Total</b>                       | <b>2.340</b>   | <b>10.249</b> |

**Wind Erosion and Unpaved Road Emissions PM10**

| Plant                              | PM10: Lbs/hour | PM10: tpy     |
|------------------------------------|----------------|---------------|
| 200 TPH RM80GO Crusher             | 1.204          | 5.272         |
| 200 TPH RM90GO Crusher with Screen | 1.204          | 5.272         |
| 200 TPH TS3600 Screen              | 1.204          | 5.272         |
| <b>Total</b>                       | <b>3.612</b>   | <b>15.816</b> |

**Plant Emissions PM2.5**

| Plant                              | PM2.5: Lbs/hour | PM2.5: tpy   |
|------------------------------------|-----------------|--------------|
| 200 TPH RM80GO Crusher             | 0.124           | 0.544        |
| 200 TPH RM90GO Crusher with Screen | 0.340           | 1.490        |
| 200 TPH TS3600 Screen              | 0.238           | 1.040        |
| <b>Total</b>                       | <b>0.702</b>    | <b>3.074</b> |

**Wind Erosion and Unpaved Road Emissions PM2.5**

| Plant                              | PM2.5: Lbs/hour | PM2.5: tpy   |
|------------------------------------|-----------------|--------------|
| 200 TPH RM80GO Crusher             | 0.281           | 1.232        |
| 200 TPH RM90GO Crusher with Screen | 0.281           | 1.232        |
| 200 TPH TS3600 Screen              | 0.281           | 1.232        |
| <b>Total</b>                       | <b>0.843</b>    | <b>3.696</b> |

**Calculation of emission increase due to modification**

Comparing the total plant emissions as per existing permit with the modified permit. Existing permit emissions were copied from the original permit application and are indicated on page 27 and 28.

| Pollutant | Total Plant Emissions existing permit (TPY) | Total Plant Emissions modified permit (TPY) | Emission Increase (TPY) |
|-----------|---|---|-------------------------|
| TSP       | 9.422                                       | 26.307                                      | <b>16.885</b>           |
| PM10      | 3.984                                       | 10.249                                      | <b>6.265</b>            |
| PM2.5     | 1.195                                       | 3.074                                       | <b>1.879</b>            |

| Pollutant | Total Wind Erosion & Unpaved Road Emissions existing permit (TPY) | Total Wind Erosion & Unpaved Road Emissions modified permit (TPY) | Emission Increase (TPY) |
|-----------|---|---|-------------------------|
| TSP       | 25.007  | 39.483  | <b>14.476</b>           |
| PM10      | 10.017  | 15.816  | <b>5.799</b>            |
| PM2.5     | 2.341   | 3.696   | <b>1.355</b>            |

| Calculations of Emissions for Crushed Stone Processing Operations  |                                |                 |                         |                             |
|--|--------------------------------|-----------------|-------------------------|-----------------------------|
| Client:  | SAMSON TRUCKING INC            |                 |                         | Date:                       |
| Facility:  | 200 TPH RM80GO! IMPACT CRUSHER |                 |                         | 5/2/2016                    |
| Permit No.:  |                                | JOB#            | 1605034                 |                             |
| <b>Annual Production Rate Calculations:</b>  |                                |                 |                         |                             |
| INPUT FIELDS:  | hrs/year                       | 8760            | Annual Production (tpy) | Annual Production (cy/year) |
| cy/hr  | 0                              | tons/hr         | 200                     |                             |
|  |                                | Transfer Points | 4                       | 1,752,000                   |
| Conversion rate "stone crushed" cy to ton = 1.35 Source: (www.enviromineinc.com/conversion_calculator.htm) |                                |                 |                         |                             |
| <b>EMISSION CALCULATIONS FOR TOTAL PART. MATTER (AP42, table 11.19.2-2, 8/04)</b>                          |                                |                 |                         |                             |

| Source   | SCC            | Em.Factor (lb/ton) | lbs/hour | Tons/Year |
|--|----------------|--------------------|----------|-----------|
| Primary Crushing   | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Primary Crushing contr.  | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Secondary Crushing   | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Secondary Crushing contr.  | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Tertiary Crushing  | 3-05-020-03    | 0.00540            | 1.080    | 4.730     |
| Tertiary Crushing contr.   | 3-05-020-03    | 0.00120            | 0.240    | 1.051     |
| Fines Crushing   | 3-05-020-05    | 0.03900            | 7.800    | 34.164    |
| Fines Crushing contr.  | 3-05-020-05    | 0.00300            | 0.600    | 2.628     |
| Screening  | 3-05-020-02,03 | 0.02500            | 5.000    | 21.900    |
| Screening contr.   | 3-05-020-02,03 | 0.00220            | 0.440    | 1.927     |
| Fines Screening  | 3-05-020-21    | 0.30000            | 60.000   | 262.800   |
| Fines Screening contr.   | 3-05-020-21    | 0.00360            | 0.720    | 3.154     |
| Conveyor Transfer Point  | 3-05-020-06    | 0.00300            | 0.600    | 2.628     |
| Conv. Transfer Point contr.  | 3-05-020-06    | 0.00014            | 0.028    | 0.123     |
| Wet Drilling - Unfrag.Stone  | 3-05-020-10    | N/D                | 0.000    | 0.000     |
| Truck unload - Fragm.Stone   | 3-05-020-31    | N/D                | 0.000    | 0.000     |
| Truck unload - conv.crushed  | 3-05-020-32    | N/D                | 0.000    | 0.000     |
| <b>EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!</b> |                |                    |          |           |

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                    |       |               |
|--|---|--------------------|-------|---------------|
| No of Points:  | 4 | lbs/hr per point   | 0.600 | Total: 2.4    |
| No of Points:  | 4 | tons/year per poin | 2.628 | Total: 10.512 |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:                       |                  |                 |   |                        |
|---|------------------|-----------------|---|------------------------|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4, 11/06):</b>       |                  |                 | Average Annual Windspeeds for Hawaii (AP42.7.1-9) |                        |
| Formula: $E = k(0.0032) \times [(U/5)^{1.3}] / [(M/2)^{1.4}]$       |                  |                 | Hilo  | 7.2 mph                |
| where: E=emission factor, k=particle size multiplier(dimensionless) |                  |                 | Honolulu  | 11.4 mph               |
| U=mean wind speed (mph), M=material moisture content                |                  |                 | Kahului   | 12.8 mph               |
|   |                  |                 | Lihue   | 12.2 mph               |
|   |                  |                 | State Average                                     | 10.9 mbh               |
| <b>k (TSP)</b>  | <b>k (PM-10)</b> | <b>U</b>        | <b>M</b>  |                        |
| 0.74  | 0.35             | 10.9            | 0.7   |                        |
| AP42.13.2.4   | AP42.13.2.4      | AP42.7.1-9      | AP42.13.2.4-1                                     |                        |
| <b>Emission Factor lb/ton:</b>                                      |                  |                 | <b>Total TSP (lb/hr)</b>                          | <b>Total TSP (tpy)</b> |
| PM-10   | 0.013            | Ann.Prod. (tpy) | 5.672   | 24.842                 |
| TSP   | 0.028            | 1,752,000       |   |                        |
| <b>TOTAL TSP CONTROLLED (-70%) FOR STORAGE PILES</b>                |                  |                 | 1.701   | 7.453                  |
| <b>PM-10 UNCONTROLLED:</b>  |                  |                 | <b>11.750 tons/year</b>                           |                        |

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**EMISSION CALCULATIONS FOR TOTAL PM-10 (AP42, table 11.19.2-2, 8/04)**

| Source                      | SCC            | Em.Factor<br>(lb/ton) | lbs/hour | Tons/Year |
|-----------------------------|----------------|-----------------------|----------|-----------|
| *Primary Crushing           | 3-05-020-01    | 0.00240               | 0.480    | 2.102     |
| *Primary Crushing contr.    | 3-05-020-01    | 0.00054               | 0.108    | 0.473     |
| *Secondary Crushing         | 3-05-020-02    | 0.00240               | 0.480    | 2.102     |
| *Secondary Crushing contr.  | 3-05-020-02    | 0.00054               | 0.108    | 0.473     |
| Tertiary Crushing           | 3-05-020-03    | 0.00240               | 0.480    | 2.102     |
| Tertiary Crushing contr.    | 3-05-020-03    | 0.00054               | 0.108    | 0.473     |
| Fines Crushing              | 3-05-020-05    | 0.01500               | 3.000    | 13.140    |
| Fines Crushing contr.       | 3-05-020-05    | 0.00120               | 0.240    | 1.051     |
| Screening                   | 3-05-020-02,03 | 0.00870               | 1.740    | 7.621     |
| Screening contr.            | 3-05-020-02,03 | 0.00074               | 0.148    | 0.648     |
| Fines Screening             | 3-05-020-21    | 0.07200               | 14.400   | 63.072    |
| Fines Screening contr.      | 3-05-020-21    | 0.00220               | 0.440    | 1.927     |
| Conveyor Transfer Point     | 3-05-020-06    | 0.00110               | 0.220    | 0.964     |
| Conv. Transfer Point contr. | 3-05-020-06    | 4.60E-05              | 0.009    | 0.040     |
| Wet Drilling - Unfrag.Stone | 3-05-020-10    | 8.00E-05              | 0.016    | 0.070     |
| Truck unload - Fragm.Stone  | 3-05-020-31    | 1.80E-05              | 0.003    | 0.014     |
| Truck unload - conv.crushed | 3-05-020-32    | 0.00010               | 0.020    | 0.088     |

EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!

\*Tertiary Crushing Emission Factors are used (AP42, table 11.19.2-2, Footnote n)

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                     |       |        |       |
|--|---|---------------------|-------|--------|-------|
| No of Points:  | 4 | lbs/hr per point    | 0.220 | Total: | 0.880 |
| No of Points:  | 4 | tons/year per point | 0.964 | Total: | 3.854 |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:                                      |                  |                 |               |   |                          |
|--|------------------|-----------------|---------------|---|--------------------------|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4):</b>                             |                  |                 |               | Average Annual Windspeeds for Hawaii (AP42,7.1-9) |                          |
| Formula: $E = k(0.0032) \times \left[ \frac{((U/5)^{1.3})}{((M/2)^{1.4})} \right]$ |                  |                 |               | Hilo 7.2 mph                                      |                          |
| where: E=emission factor, k=particle size multiplier(dimensionless)                |                  |                 |               | Honolulu 11.4 mph                                 |                          |
| U=mean wind speed (mph), M=material moisture content                               |                  |                 |               | Kahului 12.8 mph                                  |                          |
|  |                  |                 |               | Lihue 12.2 mph                                    |                          |
|  |                  |                 |               | State Average 10.9 mbh                            |                          |
| <b>k (TSP)</b>   | <b>k (PM-10)</b> | <b>U</b>        | <b>M</b>      |   |                          |
| 0.74   | 0.35             | 10.9            | 0.7           |   |                          |
| AP42,13.2.4  | AP42,13.2.4      | AP42,7.1-9      | AP42,13.2.4-1 |   |                          |
| <b>Emission Factor lb/ton:</b>   |                  |                 |               | <b>Total PM-10 (lb/hr)</b>                        | <b>Total PM-10 (tpy)</b> |
| PM-10  | 0.013            | Ann.Prod. (tpy) |               |   |                          |
| TSP  | 0.028            | 1,752,000       |               | 2.683   | 11.750                   |
| <b>PM-10 CONTROLLED (-70%)FOR STORAGE PILES</b>                                    |                  |                 |               | 0.805   | 3.525                    |

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**EMISSION CALCULATIONS FOR PM2.5 (AP42, table 11.19.2-2, 8/04)**

Emission calculations based on CEIDARS table PM2.5 fractions, Mineral Products, Crushing, Screening, Blasting, Loading and Unloading where PM2.5 equals 0.3 of PM10.

| Source                       | SCC            | Em.Factor<br>(lb/ton) | lbs/hour | Tons/Year |
|------------------------------|----------------|-----------------------|----------|-----------|
| Primary Crushing*            | 3-05-020-01    | 0.00072               | 0.144    | 0.631     |
| Primary Crushing contr.      | 3-05-020-01    | 0.00016               | 0.032    | 0.142     |
| Secondary Crushing*          | 3-05-020-02    | 0.00072               | 0.144    | 0.631     |
| Secondary Crushing contr.    | 3-05-020-02    | 0.00016               | 0.032    | 0.142     |
| Tertiary Crushing*           | 3-05-020-03    | 0.00072               | 0.144    | 0.631     |
| Tertiary Crushing contr.     | 3-05-020-03    | 0.00016               | 0.032    | 0.142     |
| Fines Crushing*              | 3-05-020-05    | 0.00450               | 0.900    | 3.942     |
| Fines Crushing contr.        | 3-05-020-05    | 0.00036               | 0.072    | 0.315     |
| Screening*                   | 3-05-020-02,03 | 0.00261               | 0.522    | 2.286     |
| Screening contr.             | 3-05-020-02,03 | 0.00022               | 0.044    | 0.194     |
| Fines Screening*             | 3-05-020-21    | 0.02160               | 4.320    | 18.922    |
| Fines Screening contr.*      | 3-05-020-21    | 0.00066               | 0.132    | 0.578     |
| Conveyor Transfer Point*     | 3-05-020-06    | 0.00033               | 0.066    | 0.289     |
| Conv. Transfer Point contr.  | 3-05-020-06    | 1.38E-05              | 0.003    | 0.012     |
| Wet Drilling - Unfrag.Stone* | 3-05-020-10    | 2.40E-05              | 0.005    | 0.021     |
| Truck unload - Fragm.Stone*  | 3-05-020-31    | 4.80E-06              | 0.001    | 0.004     |
| Truck unload - conv.crushed* | 3-05-020-32    | 0.00003               | 0.006    | 0.026     |

**EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!**

**Storage Piles**

|           | Emission PM10 | Emission PM2.5 |                        |
|-----------|---------------|----------------|------------------------|
| lbs/hour  | <b>2.683</b>  | <b>0.805</b>   | (PM10 emissions x 0.3) |
| tons/year | <b>11.750</b> | <b>3.525</b>   | (PM10 emissions x 0.3) |

**Un-Controlled Emission Calculations for multiple Transfer Points:**

|               |   |                     |                 |        |              |
|---------------|---|---------------------|-----------------|--------|--------------|
| No of Points: | 4 | lbs/hr per point    | <b>6.60E-02</b> | Total: | <b>0.264</b> |
| No of Points: | 4 | tons/year per point | <b>2.89E-01</b> | Total: | <b>1.156</b> |

| Calculations of PM-30 (TSP) Emissions for Unpaved Roads |                                |             |       |         |
|---|--------------------------------|-------------|-------|---------|
| Client:   | SAMSON TRUCKING INC.           |             |       |         |
| Facility:   | 200 TPH RM80GO! IMPACT CRUSHER |             |       |         |
| Date:   | 5/2/2016                       | PERMIT NO.: | JOB # | 1605034 |

**Equation 1a (Industrial Site) AP-42, 13.2.2 Unpaved Roads, 11/06**  
 $E = k (s/12)^a (W/3)^b$   
 where:  
 E = size-specific emission factor (lb/VMT)  
 k,a,b,c = constant (lb/VMT)  
 s = surface material silt content (%)  
 W = mean vehicle weight (tons)  
 p = number of days with at least 0.01 inches of precipitation per year  
 VMT = vehicle mile travelled

**Silt content** for stone quarrying & processing plant roads (AP-42, table 13.2.2-1):  
 Plant Road: 10%      Haul Road: 8.30%

**Table 13.2.2-2. Constants for industrial roads (equation 1a):**

| Constant   | PM-2.5 | PM-10 | PM-30 |  |  |
|------------|--------|-------|-------|--|--|
| k (lb/VMT) | 0.15   | 1.5   | 4.9   |  |  |
| a          | 0.9    | 0.9   | 0.7   |  |  |
| b          | 0.45   | 0.45  | 0.45  |  |  |
| c          | n/a    | n/a   | n/a   |  |  |
| d          | n/a    | n/a   | n/a   |  |  |

**Ranges of source conditions** for equation (AP-42, 13.2.2 -3):  
 Road silt content: 1.2 - 35%  
 Mean vehicle weight: 1.5 - 290 tons  
 Mean vehicle speed: 5-55 mph  
 Mean number of wheels: 4-7  
 Surface moisture content: 0.03-20%

|   |
|---|
| Mean vehicle weight determination:<br>Average weight empty: 16 t<br>Average weight full: 37 t<br>Average vehicle weight: 26.5 t |
|---|

**Input:**

|   |        |                          |                 |
|---|--------|--------------------------|-----------------|
| k (particle size multiplier) PM30         | 4.900  |                          |                 |
| s (silt content of road) (%)              | 3.900  | *AP42, 13.2.2, Dec. 2003 |                 |
| W (mean vehicle weight) (tons)            | 26.500 |                          |                 |
| M (surface material moisture content) (%) | 0.2    |                          | <b>Result:</b>  |
| S (mean vehicle speed) (mph)              | 10     |                          | <b>(lb/VMT)</b> |
| p (# of days with 0.01" of rain/year)*    | 85     | PM-30                    | <b>4.562</b>    |

**Total vehicle miles travelled per year:**  
 (Max TPH Throughput x Hours/Year / Truck Payload x Distance Travelled)

| TPH | Hours/year | Truck Load (T) | Distance (M) | VMT/year |
|-----|------------|----------------|--------------|----------|
| 200 | 8760       | 21             | 0.1          | 8342.9   |

|   |               |
|---|---------------|
| <b>Uncontrolled PM-30 in tons per year for unpaved roads:</b> | <b>19.029</b> |
| <b>Controlled PM-30 (tpy) for unpaved roads (-70%):</b>       | 5.709         |
| <b>Uncontrolled PM-30 in LBS/HR for unpaved roads:</b>        | <b>4.345</b>  |
| <b>Controlled PM-30 (LBS/HR) for unpaved roads (-70%):</b>    | 1.303         |

\* Honolulu Obsrvy 702.2 Hawaii (511918) 1962-2012



| Calculations of PM10 Emissions for Unpaved Roads |                                |             |       |         |
|--|--------------------------------|-------------|-------|---------|
| Client:  | SAMSON TRUCKING INC.           |             |       |         |
| Facility:  | 200 TPH RM80GO! IMPACT CRUSHER |             |       |         |
| Date:  | 5/2/2016                       | PERMIT NO.: | JOB # | 1605034 |

| Equation 1a (Industrial Site) AP-42, 13.2.2 Unpaved Roads, 11/06                         |        |            |       |  |  |
|--|--------|------------|-------|--|--|
| <b>E = k (s/12)<sup>a</sup>(W/3)<sup>b</sup></b>   |        |            |       |  |  |
| where:   |        |            |       |  |  |
| E = size-specific emission factor (lb/VMT)   |        |            |       |  |  |
| k,a,b,c = constant (lb/VMT)  |        |            |       |  |  |
| s = surface material silt content (%)  |        |            |       |  |  |
| W = mean vehicle weight (tons)   |        |            |       |  |  |
| p = number of days with at least 0.01 inches of precipitation per year                   |        |            |       |  |  |
| VMT = vehicle mile travelled   |        |            |       |  |  |
| <b>Silt content</b> for stone quarrying & processing plant roads (AP-42,table 13.2.2-1): |        |            |       |  |  |
| Plant Road:  | 10%    | Haul Road: | 8.30% |  |  |
| <b>Table 13.2.2-2. Constants for industrial roads (equation 1a):</b>                     |        |            |       |  |  |
| Constant   | PM-2.5 | PM-10      | PM-30 |  |  |
| k (lb/VMT)   | 0.15   | 1.5        | 4.9   |  |  |
| a  | 0.9    | 0.9        | 0.7   |  |  |
| b  | 0.45   | 0.45       | 0.45  |  |  |
| c  | n/a    | n/a        | n/a   |  |  |
| d  | n/a    | n/a        | n/a   |  |  |

| Ranges of source conditions for equation (AP-42, 13.2.2 -3): |                                    |
|--|------------------------------------|
| Road silt content: 1.2 - 35%                                 | Mean vehicle weight determination: |
| Mean vehicle weight: 1.5 - 290 tons                          | Average weight empty: 16 t         |
| Mean vehicle speed: 5-55 mph                                 | Average weight full: 37 t          |
| Mean number of wheels: 4-7                                   | Average vehicle weight: 26.5 t     |
| Surface moisture content: 0.03-20%                           |                                    |

| Input:                                    |        |                        |  | Result: |       |
|---|--------|------------------------|--|---------|-------|
| k (particle size multiplier) PM-10        | 1.500  |                        |  |         |       |
| s (silt content of road) (%)              | 3.900  | *AP42,13.2.2, Dec 2003 |  |         |       |
| W (mean vehicle weight) (tons)            | 26.500 |                        |  |         |       |
| M (surface material moisture content) (%) | 0.2    |                        |  |         |       |
| S (mean vehicle speed) (mph)              | 10     |                        |  |         |       |
| p (# of days with 0.01" of rain/year)*    | 85     | PM-10                  |  |         | 1.396 |

| Total vehicle miles travelled per year:                                |            |                |              |  |              |
|--|------------|----------------|--------------|--|--------------|
| (Max TPH Throughput x Hours/Year / Truck Payload x Distance Travelled) |            |                |              |  |              |
| TPH  | Hours/year | Truck Load (T) | Distance (M) |  | VMT/year     |
| 200  | 8760       | 21             | 0.1          |  | 8342.9       |
| <b>Uncontrolled PM-10 in tons per year for unpaved roads:</b>          |            |                |              |  | <b>5.825</b> |
| <b>Controlled PM-10 (tpy) for unpaved roads (-70%):</b>                |            |                |              |  | <b>1.748</b> |
| <b>Uncontrolled PM-10 in lbs/hr for unpaved roads:</b>                 |            |                |              |  | <b>1.330</b> |
| <b>Controlled PM-10 (LBS/HR) for unpaved roads (-70%):</b>             |            |                |              |  | <b>0.399</b> |
| * Honolulu Obsrvy 702.2 Hawaii (511918) 1962-2012                      |            |                |              |  |              |

| Calculations of PM2.5 Emissions for Unpaved Roads |                                |             |       |         |
|---|--------------------------------|-------------|-------|---------|
| Client:   | SAMSON TRUCKING INC.           |             |       |         |
| Facility:   | 200 TPH RM80GO! IMPACT CRUSHER |             |       |         |
| Date:   | 5/2/2016                       | PERMIT NO.: | JOB # | 1605034 |

**Equation 1a (Industrial Site) AP-42, 13.2.2 Unpaved Roads, 11/06**  
 $E = k (s/12)^a (W/3)^b$   
 where:  
 E = size-specific emission factor (lb/VMT)  
 k,a,b,c = constant (lb/VMT)  
 s = surface material silt content (%)  
 W = mean vehicle weight (tons)  
 p = number of days with at least 0.01 inches of precipitation per year  
 VMT = vehicle mile travelled

**Silt content for stone quarrying & processing plant roads (AP-42, table 13.2.2-1):**  
 Plant Road: 10%      Haul Road: 8.30%

**Table 13.2.2-2. Constants for industrial roads (equation 1a):**

| Constant   | PM-2.5 | PM-10 | PM-30 |  |  |
|------------|--------|-------|-------|--|--|
| k (lb/VMT) | 0.15   | 1.5   | 4.9   |  |  |
| a          | 0.9    | 0.9   | 0.7   |  |  |
| b          | 0.45   | 0.45  | 0.45  |  |  |
| c          | n/a    | n/a   | n/a   |  |  |
| d          | n/a    | n/a   | n/a   |  |  |

**Ranges of source conditions for equation (AP-42, 13.2.2 -3):**  
 Road silt content: 1.2 - 35%  
 Mean vehicle weight: 1.5 - 290 tons  
 Mean vehicle speed: 5-55 mph  
 Mean number of wheels: 4-7  
 Surface moisture content: 0.03-20%

|   |
|---|
| Mean vehicle weight determination:<br>Average weight empty: 16 t<br>Average weight full: 37 t<br>Average vehicle weight: 26.5 t |
|---|

**Input:**

|   |        |                         |                |
|---|--------|-------------------------|----------------|
| k (particle size multiplier) PM2.5        | 0.150  |                         |                |
| s (silt content of road) (%)              | 3.900  | *AP42, 13.2.2, Dec.2003 |                |
| W (mean vehicle weight) (tons)            | 26.500 |                         |                |
| M (surface material moisture content) (%) | 0.2    |                         | <b>Result:</b> |
| S (mean vehicle speed) (mph)              | 10     |                         | (lb/VMT)       |
| p (# of days with 0.01" of rain/year)*    | 85     | PM2.5                   | 0.140          |

**Total vehicle miles travelled per year:**  
 (Max TPH Throughput x Hours/Year / Truck Payload x Distance Travelled)

| TPH | Hours/year | Truck Load (T) | Distance (M) | VMT/year |
|-----|------------|----------------|--------------|----------|
| 200 | 8760       | 21             | 0.1          | 8342.9   |

|   |       |
|---|-------|
| <b>Uncontrolled PM2.5 in tons per year for unpaved roads:</b> | 0.583 |
| <b>Controlled PM2.5 (tpy) for unpaved roads (-70%):</b>       | 0.175 |
| <b>Uncontrolled PM2.5 in lbs/hr for unpaved roads:</b>        | 0.133 |
| <b>Controlled PM2.5 (LBS/HR) for unpaved roads (-70%):</b>    | 0.040 |

\* Honolulu Obsrvy 702.2 Hawaii (511918) 1962-2012

**Note: The above calculations of unpaved roads also apply to the RM90GO crusher and the TS3600 screen.**

| Calculations of Emissions for Crushed Stone Processing Operations |                                |             |                                |                                    |
|---|--------------------------------|-------------|--------------------------------|------------------------------------|
| <b>Client:</b>  | SAMSON TRUCKING INC            |             |                                | <b>Date:</b>                       |
| <b>Facility:</b>  | 200 TPH RM90GO! IMPACT CRUSHER |             |                                | 7/22/2019                          |
| <b>Permit No.:</b>  | 0839-01-CT                     | <b>JOB#</b> | 1906039                        |                                    |
| <b>Annual Production Rate Calculations:</b>                       |                                |             |                                |                                    |
| <b>INPUT FIELDS:</b>  | hrs/year                       | 8760        | <b>Annual Production (tpy)</b> | <b>Annual Production (cy/year)</b> |
| cy/hr   | 0                              | tons/hr     | 200                            |                                    |
|   | Transfer Points                | 7           | 1,752,000                      | 0                                  |

Conversion rate "stone crushed" cy to ton = 1.35 Source: (www.environlineinc.com/conversion\_calculator.htm)

**EMISSION CALCULATIONS FOR TOTAL PART. MATTER (AP42, table 11.19.2-2, 8/04)**

| Source                      | SCC            | Em.Factor (lb/ton) | lbs/hour | Tons/Year |
|-----------------------------|----------------|--------------------|----------|-----------|
| Primary Crushing            | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Primary Crushing contr.     | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Secondary Crushing          | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Secondary Crushing contr.   | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Tertiary Crushing           | 3-05-020-03    | 0.00540            | 1.080    | 4.730     |
| Tertiary Crushing contr.    | 3-05-020-03    | 0.00120            | 0.240    | 1.051     |
| Fines Crushing              | 3-05-020-05    | 0.03900            | 7.800    | 34.164    |
| Fines Crushing contr.       | 3-05-020-05    | 0.00300            | 0.600    | 2.628     |
| Screening                   | 3-05-020-02,03 | 0.02500            | 5.000    | 21.900    |
| Screening contr.            | 3-05-020-02,03 | 0.00220            | 0.440    | 1.927     |
| Fines Screening             | 3-05-020-21    | 0.30000            | 60.000   | 262.800   |
| Fines Screening contr.      | 3-05-020-21    | 0.00360            | 0.720    | 3.154     |
| Conveyor Transfer Point     | 3-05-020-06    | 0.00300            | 0.600    | 2.628     |
| Conv. Transfer Point contr. | 3-05-020-06    | 0.00014            | 0.028    | 0.123     |
| Wet Drilling - Unfrag Stone | 3-05-020-10    | N/D                | 0.000    | 0.000     |
| Truck unload - Fragm Stone  | 3-05-020-31    | N/D                | 0.000    | 0.000     |
| Truck unload - conv crushed | 3-05-020-32    | N/D                | 0.000    | 0.000     |

EMISSIONS IN **BOLD ONLY** ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                     |       |               |
|--|---|---------------------|-------|---------------|
| No of Points:  | 7 | lbs/hr per point    | 0.600 | Total: 4.2    |
| No of Points:  | 7 | tons/year per point | 2.628 | Total: 18.396 |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:   |                  |                        |               |  |
|---|------------------|------------------------|---------------|--|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4, 11/06):</b>                                       |                  |                        |               | Average Annual Windspeeds for Hawaii (AP42, 7.1-9) |
| Formula: $E = k(0.0032) \times \left( \frac{U}{5} \right)^{1.3} / \left( \frac{M}{2} \right)^{1.4}$ |                  |                        |               | Hilo 7.2 mph                                       |
| where: E=emission factor, k=particle size multiplier(dimensionless)                                 |                  |                        |               | Honolulu 11.4 mph                                  |
| U=mean wind speed (mph), M=material moisture content (%)  |                  |                        |               | Kahului 12.8 mph                                   |
| <b>k (TSP)</b>  | <b>k (PM-10)</b> | <b>U</b>               | <b>M</b>      | Lihue 12.2 mph                                     |
| <b>0.74</b>   | <b>0.35</b>      | <b>10.9</b>            | <b>0.7</b>    | State Average 10.9 mbh                             |
| AP42,13.2.4   | AP42,13.2.4      | AP42,7.1-9             | AP42,13.2.4-1 |  |
| <b>Emission Factor lb/ton:</b>  |                  |                        |               | <b>Total TSP (lb/hr)</b>                           |
| <b>PM-10</b>  | <b>0.013</b>     | <b>Ann.Prod. (tpy)</b> |               | <b>Total TSP (tpy)</b>                             |
| <b>TSP</b>  | <b>0.028</b>     | <b>1,752,000</b>       |               | <b>5.672</b>                                       |
| <b>TOTAL TSP CONTROLLED (-70%)FOR STORAGE PILES</b>   |                  |                        |               | <b>1.701</b>                                       |
| <b>PM-10 UNCONTROLLED:</b>  |                  |                        |               | <b>11.750 tons/year</b>                            |

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**EMISSION CALCULATIONS FOR TOTAL PM-10 (AP42, table 11.19.2-2, 8/04)**

| Source                      | SCC            | Em.Factor (lb/ton) | lbs/hour | Tons/Year |
|-----------------------------|----------------|--------------------|----------|-----------|
| *Primary Crushing           | 3-05-020-01    | 0.00240            | 0.480    | 2.102     |
| *Primary Crushing contr.    | 3-05-020-01    | 0.00054            | 0.108    | 0.473     |
| *Secondary Crushing         | 3-05-020-02    | 0.00240            | 0.480    | 2.102     |
| *Secondary Crushing contr.  | 3-05-020-02    | 0.00054            | 0.108    | 0.473     |
| Tertiary Crushing           | 3-05-020-03    | 0.00240            | 0.480    | 2.102     |
| Tertiary Crushing contr.    | 3-05-020-03    | 0.00054            | 0.108    | 0.473     |
| Fines Crushing              | 3-05-020-05    | 0.01500            | 3.000    | 13.140    |
| Fines Crushing contr.       | 3-05-020-05    | 0.00120            | 0.240    | 1.051     |
| Screening                   | 3-05-020-02,03 | 0.00870            | 1.740    | 7.621     |
| Screening contr.            | 3-05-020-02,03 | 0.00074            | 0.148    | 0.648     |
| Fines Screening             | 3-05-020-21    | 0.07200            | 14.400   | 63.072    |
| Fines Screening contr.      | 3-05-020-21    | 0.00220            | 0.440    | 1.927     |
| Conveyor Transfer Point     | 3-05-020-06    | 0.00110            | 0.220    | 0.964     |
| Conv. Transfer Point contr. | 3-05-020-06    | 4.60E-05           | 0.009    | 0.040     |
| Wet Drilling - Unfrag.Stone | 3-05-020-10    | 8.00E-05           | 0.016    | 0.070     |
| Truck unload - Fragm.Stone  | 3-05-020-31    | 1.60E-05           | 0.003    | 0.014     |
| Truck unload - conv.crushed | 3-05-020-32    | 0.00010            | 0.020    | 0.088     |

EMISSIONS IN **BOLD ONLY** ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!

\*Tertiary Crushing Emission Factors are used (AP42, table 11.19.2-2, Footnote n)

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                     |       |              |
|--|---|---------------------|-------|--------------|
| No of Points:  | 7 | lbs/hr per point    | 0.220 | Total: 1.540 |
| No of Points:  | 7 | tons/year per point | 0.964 | Total: 6.745 |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:                                      |                  |                  |                  |   |
|--|------------------|------------------|------------------|---|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4):</b>                             |                  |                  |                  | Average Annual Windspeeds for Hawaii (AP42,7.1-9) |
| Formula: $E = k(0.0032) \times \left[ \frac{((U/5)^{1.3})}{((M/2)^{1.4})} \right]$ |                  |                  |                  | Hilo 7.2 mph                                      |
| where: E=emission factor, k=particle size multiplier(dimensionless)                |                  |                  |                  | Honolulu 11.4 mph                                 |
| U=mean wind speed (mph), M=material moisture content (%)                           |                  |                  |                  | Kahului 12.8 mph                                  |
| <b>k (TSP)</b>   | <b>k (PM-10)</b> | <b>U</b>         | <b>M</b>         | Lihue 12.2 mph                                    |
| <b>0.74</b>  | <b>0.35</b>      | <b>10.9</b>      | <b>0.7</b>       | State Average 10.9 mbh                            |
| AP42,13.2.4  | AP42,13.2.4      | AP42,7.1-9       | AP42,13.2.4-1    |   |
| <b>Emission Factor lb/ton:</b>   |                  |                  | <b>Ann.Prod.</b> | <b>Total PM-10 (lb/hr)</b>                        |
| <b>PM-10</b>   | <b>0.013</b>     | <b>(tpy)</b>     |                  | <b>Total PM-10 (tpy)</b>                          |
| <b>TSP</b>   | <b>0.028</b>     | <b>1,752,000</b> |                  | <b>2.683</b>                                      |
| <b>PM-10 CONTROLLED (-70%)FOR STORAGE PILES</b>                                    |                  |                  |                  | <b>0.805</b>                                      |
|  |                  |                  |                  | <b>3.525</b>                                      |

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**EMISSION CALCULATIONS FOR PM2.5 (AP42, table 11.19.2-2, 8/04)**

Emission calculations based on CEIDARS table PM2.5 fractions, Mineral Products, Crushing, Screening, Blasting, Loading and Unloading where PM2.5 equals 0.3 of PM10.

| Source                       | SCC            | Em.Factor<br>(lb/ton) | lbs/hour | Tons/Year |
|------------------------------|----------------|-----------------------|----------|-----------|
| Primary Crushing*            | 3-05-020-01    | 0.00072               | 0.144    | 0.631     |
| Primary Crushing contr.      | 3-05-020-01    | 0.00016               | 0.032    | 0.142     |
| Secondary Crushing*          | 3-05-020-02    | 0.00072               | 0.144    | 0.631     |
| Secondary Crushing contr.    | 3-05-020-02    | 0.00016               | 0.032    | 0.142     |
| Tertiary Crushing*           | 3-05-020-03    | 0.00072               | 0.144    | 0.631     |
| Tertiary Crushing contr.     | 3-05-020-03    | 0.00016               | 0.032    | 0.142     |
| Fines Crushing*              | 3-05-020-05    | 0.00450               | 0.900    | 3.942     |
| Fines Crushing contr.        | 3-05-020-05    | 0.00036               | 0.072    | 0.315     |
| Screening*                   | 3-05-020-02,03 | 0.00261               | 0.522    | 2.286     |
| Screening contr.             | 3-05-020-02,03 | 0.00022               | 0.044    | 0.194     |
| Fines Screening*             | 3-05-020-21    | 0.02160               | 4.320    | 18.922    |
| Fines Screening contr.*      | 3-05-020-21    | 0.00066               | 0.132    | 0.578     |
| Conveyor Transfer Point*     | 3-05-020-06    | 0.00033               | 0.066    | 0.289     |
| Conv. Transfer Point contr.  | 3-05-020-06    | 1.38E-05              | 0.003    | 0.012     |
| Wet Drilling - Unfrag.Stone* | 3-05-020-10    | 2.40E-05              | 0.005    | 0.021     |
| Truck unload - Fragm Stone*  | 3-05-020-31    | 4.80E-06              | 0.001    | 0.004     |
| Truck unload - conv.crushed* | 3-05-020-32    | 0.00003               | 0.006    | 0.026     |

**EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!**

**Storage Piles**

|           | Emission PM10 | Emission PM2.5 |                        |
|-----------|---------------|----------------|------------------------|
| lbs/hour  | 2.683         | 0.805          | (PM10 emissions x 0.3) |
| tons/year | 11.750        | 3.525          | (PM10 emissions x 0.3) |

| <b>Un-Controlled Emission Calculations for multiple Transfer Points:</b> |   |                     |          |              |
|--|---|---------------------|----------|--------------|
| No of Points:  | 7 | lbs/hr per point    | 6.60E-02 | Total: 0.462 |
| No of Points:  | 7 | tons/year per point | 2.89E-01 | Total: 2.024 |

| Calculations of Emissions for Crushed Stone Processing Operations |                                |                 |           |                                    |
|---|--------------------------------|-----------------|-----------|------------------------------------|
| <b>Client:</b>  | SAMSON TRUCKING INC            |                 |           | <b>Date:</b>                       |
| <b>Facility:</b>  | 200 TPH TS3600 Screening Plant |                 |           | 7/22/2019                          |
| <b>Permit No.:</b>  | 0839-01-CT                     | <b>JOB#</b>     | 1906039   |                                    |
| <b>Annual Production Rate Calculations:</b>                       |                                |                 |           |                                    |
| <b>INPUT FIELDS:</b>  | hrs/year                       | 8760            |           | <b>Annual Production (tpy)</b>     |
| cy/yr   | 0                              | tons/hr         | 200       | <b>Annual Production (cy/year)</b> |
|   |                                | Transfer Points | 4         | 0                                  |
|   |                                |                 | 1,752,000 | 0                                  |

Conversion rate "stone crushed" cy to ton = 1.35 Source: (www.enviromineinc.com/conversion\_calculator.htm)

**EMISSION CALCULATIONS FOR TOTAL PART. MATTER (AP42, table 11.19.2-2, 8/04)**

| Source                      | SCC            | Em.Factor (lb/ton) | lbs/hour | Tons/Year |
|-----------------------------|----------------|--------------------|----------|-----------|
| Primary Crushing            | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Primary Crushing contr.     | 3-05-020-01    | N/D                | 0.000    | 0.000     |
| Secondary Crushing          | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Secondary Crushing contr.   | 3-05-020-02    | N/D                | 0.000    | 0.000     |
| Tertiary Crushing           | 3-05-020-03    | 0.00540            | 1.080    | 4.730     |
| Tertiary Crushing contr.    | 3-05-020-03    | 0.00120            | 0.240    | 1.051     |
| Fines Crushing              | 3-05-020-05    | 0.03900            | 7.800    | 34.164    |
| Fines Crushing contr.       | 3-05-020-05    | 0.00300            | 0.600    | 2.628     |
| Screening                   | 3-05-020-02,03 | 0.02500            | 5.000    | 21.900    |
| Screening contr.            | 3-05-020-02,03 | 0.00220            | 0.440    | 1.927     |
| Fines Screening             | 3-05-020-21    | 0.30000            | 60.000   | 262.800   |
| Fines Screening contr.      | 3-05-020-21    | 0.00360            | 0.720    | 3.154     |
| Conveyor Transfer Point     | 3-05-020-06    | 0.00300            | 0.600    | 2.628     |
| Conv. Transfer Point contr. | 3-05-020-06    | 0.00014            | 0.028    | 0.123     |
| Wet Drilling - Unfrag.Stone | 3-05-020-10    | N/D                | 0.000    | 0.000     |
| Truck unload - Fragm.Stone  | 3-05-020-31    | N/D                | 0.000    | 0.000     |
| Truck unload - conv.crushed | 3-05-020-32    | N/D                | 0.000    | 0.000     |

**EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!**

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                    |       |               |
|--|---|--------------------|-------|---------------|
| No of Points:  | 4 | lbs/hr per point   | 0.600 | Total: 2.4    |
| No of Points:  | 4 | tons/year per poin | 2.628 | Total: 10.512 |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:                       |                  |                          |  |          |
|---|------------------|--------------------------|--|----------|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4, 11/06):</b>       |                  |                          | Average Annual Windspeeds for Hawaii (AP42, 7.1-9) |          |
| Formula: $E = k(0.0032) \times [((U/5)^{1.3}) / ((M/2)^{1.4})]$     |                  |                          | Hilo   | 7.2 mph  |
| where: E=emission factor, k=particle size multiplier(dimensionless) |                  |                          | Honolulu   | 11.4 mph |
| U=mean wind speed (mph), M=material moisture content (%)            |                  |                          | Kahului  | 12.8 mph |
|   |                  |                          | Lihue  | 12.2 mph |
|   |                  |                          | State Average                                      | 10.9 mbh |
| <b>k (TSP)</b>  | <b>k (PM-10)</b> | <b>U</b>                 | <b>M</b>   |          |
| 0.74  | 0.36             | 10.9                     | 0.7  |          |
| AP42,13.2.4   | AP42,13.2.4      | AP42,7.1-9               | AP42,13.2.4-1                                      |          |
| <b>Emission Factor lb/ton:</b>                                      | <b>Ann.Prod.</b> | <b>Total TSP (lb/hr)</b> | <b>Total TSP (tpy)</b>                             |          |
| PM-10   | 0.013            |                          |  |          |
| TSP   | 0.028            | 1,752,000                | 5.672  |          |
| <b>TOTAL TSP CONTROLLED (-70%)FOR STORAGE PILES</b>                 |                  |                          | 1.701  | 7.453    |
| <b>PM-10 UNCONTROLLED:</b>  | 11.750 tons/year |                          |  |          |

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**EMISSION CALCULATIONS FOR TOTAL PM-10 (AP42, table 11.19.2-2, 8/04)**

| Source                      | SCC            | Em.Factor (lb/ton) | lbs/hour | Tons/Year |
|-----------------------------|----------------|--------------------|----------|-----------|
| *Primary Crushing           | 3-05-020-01    | 0.00240            | 0.480    | 2.102     |
| *Primary Crushing contr.    | 3-05-020-01    | 0.00054            | 0.108    | 0.473     |
| *Secondary Crushing         | 3-05-020-02    | 0.00240            | 0.480    | 2.102     |
| *Secondary Crushing contr.  | 3-05-020-02    | 0.00054            | 0.108    | 0.473     |
| Tertiary Crushing           | 3-05-020-03    | 0.00240            | 0.480    | 2.102     |
| Tertiary Crushing contr.    | 3-05-020-03    | 0.00054            | 0.108    | 0.473     |
| Fines Crushing              | 3-05-020-05    | 0.01500            | 3.000    | 13.140    |
| Fines Crushing contr.       | 3-05-020-05    | 0.00120            | 0.240    | 1.051     |
| Screening                   | 3-05-020-02,03 | 0.00870            | 1.740    | 7.621     |
| Screening contr.            | 3-05-020-02,03 | 0.00074            | 0.148    | 0.648     |
| Fines Screening             | 3-05-020-21    | 0.07200            | 14.400   | 63.072    |
| Fines Screening contr.      | 3-05-020-21    | 0.00220            | 0.440    | 1.927     |
| Conveyor Transfer Point     | 3-05-020-06    | 0.00110            | 0.220    | 0.964     |
| Conv. Transfer Point contr. | 3-05-020-06    | 4.60E-05           | 0.009    | 0.040     |
| Wet Drilling - Unfrag.Stone | 3-05-020-10    | 8.00E-05           | 0.016    | 0.070     |
| Truck unload - Fragm.Stone  | 3-05-020-31    | 1.60E-05           | 0.003    | 0.014     |
| Truck unload - conv.crushed | 3-05-020-32    | 0.00010            | 0.020    | 0.088     |

EMISSIONS IN **BOLD ONLY** ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!

\*Tertiary Crushing Emission Factors are used (AP42, table 11.19.2-2, Footnote n)

| Uncontrolled Emission Calculations for multiple Transfer Points: |   |                    |       |        |              |
|--|---|--------------------|-------|--------|--------------|
| No of Points:  | 4 | lbs/hr per point   | 0.220 | Total: | <b>0.880</b> |
| No of Points:  | 4 | tons/year per poin | 0.964 | Total: | <b>3.854</b> |

| EMISSION CALCULATIONS FOR STORAGE PILES ONLY:                       |                  |                  |  |                          |
|---|------------------|------------------|--|--------------------------|
| <b>Wind Erosion from Storage Piles (AP42, 13.2.4):</b>              |                  |                  | Average Annual Windspeeds for Hawaii (AP42, 7.1-9) |                          |
| Formula: $E = k(0.0032) \times [((U/5)^{1.3}) / ((M/2)^{1.4})]$     |                  |                  | Hilo 7.2 mph                                       |                          |
| where: E=emission factor, k=particle size multiplier(dimensionless) |                  |                  | Honolulu 11.4 mph                                  |                          |
| U=mean wind speed (mph), M=material moisture content (%)            |                  |                  | Kahului 12.8 mph                                   |                          |
| <b>k (TSP)</b>  | <b>k (PM-10)</b> | <b>U</b>         | <b>M</b>   | Lihue 12.2 mph           |
| <b>0.74</b>   | <b>0.35</b>      | <b>10.9</b>      | <b>0.7</b>   | State Average 10.9 mbh   |
| AP42,13.2.4   | AP42,13.2.4      | AP42,7.1-9       | AP42,13.2.4-1                                      |                          |
| <b>Emission Factor lb/ton:</b>                                      |                  | <b>Ann.Prod.</b> | <b>Total PM-10 (lb/hr)</b>                         | <b>Total PM-10 (tpy)</b> |
| <b>PM-10</b>  | <b>0.013</b>     | <b>(tpy)</b>     | <b>2.683</b>                                       | <b>11.750</b>            |
| <b>TSP</b>  | <b>0.028</b>     | <b>1,752,000</b> |  |                          |
| <b>PM-10 CONTROLLED (-70%)FOR STORAGE PILES</b>                     |                  |                  | <b>0.805</b>                                       | <b>3.525</b>             |

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**EMISSION CALCULATIONS FOR PM2.5 (AP42, table 11.19.2-2, 8/04)**

Emission calculations based on CEIDARS table PM2.5 fractions, Mineral Products, Crushing, Screening, Blasting, Loading and Unloading where PM2.5 equals 0.3 of PM10.

| Source                       | SCC            | Em.Factor<br>(lb/ton) | lbs/hour | Tons/Year |
|------------------------------|----------------|-----------------------|----------|-----------|
| Primary Crushing*            | 3-05-020-01    | 0.00072               | 0.144    | 0.631     |
| Primary Crushing contr.      | 3-05-020-01    | 0.00016               | 0.032    | 0.142     |
| Secondary Crushing*          | 3-05-020-02    | 0.00072               | 0.144    | 0.631     |
| Secondary Crushing contr.    | 3-05-020-02    | 0.00016               | 0.032    | 0.142     |
| Tertiary Crushing*           | 3-05-020-03    | 0.00072               | 0.144    | 0.631     |
| Tertiary Crushing contr.     | 3-05-020-03    | 0.00016               | 0.032    | 0.142     |
| Fines Crushing*              | 3-05-020-05    | 0.00450               | 0.900    | 3.942     |
| Fines Crushing contr.        | 3-05-020-05    | 0.00036               | 0.072    | 0.315     |
| Screening*                   | 3-05-020-02,03 | 0.00261               | 0.522    | 2.286     |
| Screening contr.             | 3-05-020-02,03 | 0.00022               | 0.044    | 0.194     |
| Fines Screening*             | 3-05-020-21    | 0.02160               | 4.320    | 18.922    |
| Fines Screening contr.*      | 3-05-020-21    | 0.00066               | 0.132    | 0.578     |
| Conveyor Transfer Point*     | 3-05-020-06    | 0.00033               | 0.066    | 0.289     |
| Conv. Transfer Point contr.  | 3-05-020-06    | 1.38E-05              | 0.003    | 0.012     |
| Wet Drilling - Unfrag.Stone* | 3-05-020-10    | 2.40E-05              | 0.005    | 0.021     |
| Truck unload - Fragn Stone*  | 3-05-020-31    | 4.80E-06              | 0.001    | 0.004     |
| Truck unload - conv.crushed* | 3-05-020-32    | 0.00003               | 0.006    | 0.026     |

**EMISSIONS IN BOLD ONLY ARE USED FOR EMISSION CALCULATIONS FOR THIS PLANT!**

**Storage Piles**

|           | Emission PM10 | Emission PM2.5 |                        |
|-----------|---------------|----------------|------------------------|
| lbs/hour  | 2.683         | 0.805          | (PM10 emissions x 0.3) |
| tons/year | 11.750        | 3.525          | (PM10 emissions x 0.3) |

| <b>Un-Controlled Emission Calculations for multiple Transfer Points:</b> |   |                     |          |                     |
|--|---|---------------------|----------|---------------------|
| No of Points:  | 4 | lbs/hr per point    | 6.60E-02 | Total: <b>0.264</b> |
| No of Points:  | 4 | tons/year per point | 2.89E-01 | Total: <b>1.156</b> |



**APPENDIX C**

**EQUIPMENT INFORMATION & DATA**



RM90GO Crusher with MS95GO double deck screen

| <b>DATA</b>                                     |  |
|---|--|
| <b>RM 9060! - TRACKED MOBILE IMPACT CRUSHER</b> |  |
| <b>Output</b>                                   | Up to 200 t/h, depending on material   |
| <b>Feed material size</b>                       | Edge length max. 650 mm  |
| <b>Inlet opening</b>                            | 880 x 650 mm   |
| <b>Crusher unit</b>                             | RUBBLE MASTER impact crusher with 2 or 4 hammers   |
| <b>Operation</b>                                | One operator using radio control for crushing and manoeuvring operations   |
| <b>Feed unit</b>                                | Asymmetric vibro feeder with 2.8 m <sup>2</sup> and 2 vibrator motors each 3.1 kW, loading height 2,880 mm, effective feed length and width: 2,880 x 1,990 mm<br>Feed control system for automatic crusher feeding Hardox 400 wear lining  |
| <b>Prescreening</b>                             | Efficient prescreen with mesh screen<br>Screen area 1,050 x 800 mm discharge on main conveyor belt by means of fully integrated bypass chute or via optional side discharge belt   |
| <b>Main discharge belt (crushed material)</b>   | Folding conveyor 800 mm wide, folds into transport position hydraulically<br>Discharge height 2,950 mm   |
| <b>Discharge belt (screened material)</b>       | Folding conveyor 500 mm wide, folds into transport position hydraulically<br>Discharge height 2,400 mm   |
| <b>Power unit</b>                               | John Deere (Stage III A at constant engine speed), 6 cylinder, 194 kW at 1,800 synchronous generator 40 kVA 400 V, electrical outlets 230 V and 400 V for external drives up to 15 kVA, optional engine tier 4I/stage IV<br><br>Optional RM 90TWO GO! John Deere constant speed engine - emissions regulation 3/stage IIIa, for additional electric crushing capability using external power supply, variable rotor speed, available only without RM M895GO!, RM 0680GO! and RM RFB7540GO! |
| <b>Release system</b>                           | To remove blockages inside crusher   |
| <b>Magnetic separator</b>                       | Ultra-strong magnet, operates to left and right, belt width 800 mm   |
| <b>Transport system</b>                         | Crawler gear   |
| <b>Weight</b>                                   | 23,800 kg  |
| <b>Options</b>                                  | Dust suppression using water spray inside crusher and at outlet and belts<br>Diesel filling pump<br>Crusher hammer changing system<br>Cable remote control<br>Central lubrication system<br>Blind plate for grizzly  |
| <b>Add-on equipment</b>                         | RM M895GO! mobile single screen unit with a screen surface of 2.0 x 1.1 m and two belts for precisely screened product.<br>Screen unit in combination with an RM RFB7540GO! for oversize grain refeeding in closed circuit or stockpiling oversize grain at an angle between 90° and 180°.<br>Weight: 4,000 kg   |



TS3600 Mobile Screen

## TS3600 MOBILE CRAWLER DUAL DECK SCREEN UNIT

**Capacity:** up to 200 t/h  
**Feeding size:** up to 250 mm  
**Feeding material:** Rubble, natural stone, asphalt, concrete  
**Transporting system:** hook lift system

**Feed hopper:** Volumes: 3.8 m<sup>3</sup>  
 Tilting pre-screen: separation at 100mm, hydraulic  
 tilting mechanism with radio control  
**Feed width:** 3200 mm  
**Feed height:** approx. 3000 mm

**Screen box:** Screen length: 3000 mm  
 Screen width: 1250 mm  
 Screen angle: 20° to 25°, hydraulically adjustable  
 Design: 2 deck

**Discharge belts:** Number: 3 for fine/medium/oversize grain,  
 pivot hydraulically  
 Length: approx. 6500 mm  
 Discharge height: up to 4000 mm

### Main Dimensions:

|  |               |
|--|---------------|
| maximum transporting length<br>(with 2 discharging belts oversize) | 11.100 mm     |
| maximum transporting height  | 3.400 mm      |
| maximum width  | 2.550 mm      |
| maximum working length   | 12.850 mm     |
| maximum working height   | 3.600 mm      |
| transporting weight  | ca. 15.500 kg |

### Diesel engine:

|                  |                      |
|------------------|----------------------|
| Type             | F4L 914 E            |
| Manufacturer     | Deutz                |
| Cubic capacity   | 3236 cm <sup>3</sup> |
| No. of cylinders | 4                    |