ADMINISTRATIVE RECORD

R.H.S. Lee, Inc.

Application No. 0669-03 for Renewal

Located At: Various Temporary Sites, State of Hawaii

Temporary CSP No. 0669-01-CT

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Public Notice

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

(Docket No. 24-CA-PA-06)

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. 0669-01-CT
Application No. 0669-03 for Renewal
R.H.S. Lee, Inc.
250 TPH Mobile Crushing and 280 TPH Screening Plant
Located At: Various Temporary Sites, State of Hawaii
Current Location: (Highways-DOT) Ka Uka Yard, Waipio, Island of Oahu
UTM: 4Q; 604,391.24 m E; 2,370,206.24 m N (NAD-83)

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

The issuance of **Temporary CSP No. 0669-01-CT** will grant conditional approval for R.H.S. Lee, Inc. to continue to operate one (1) 250 TPH Extec I-C13 Crusher and one (1) 280 TPH Extec S-5 Screener. Water suppression will be used as necessary to minimize fugitive emissions. The facility is subject to 40 Code of Federal Regulations (CFR) Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants. This permit, if issued, will supersede Temporary CSP No. 0669-01-CT, issued on December 20, 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 during regular office hours, Monday through Friday, 7:45 a.m. to 4:15 p.m., at the following location:

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 and must be postmarked or received by **April 23, 2024.**

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 (30) days in advance of the hearing.

Interested persons may obtain copies of the administrative record or parts thereof by paying **five (5) cents per page copying costs**. Please send written requests to the Clean Air Branch listed above or call Mr. Al Jerome Natac at the Clean Air Branch 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.

The 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.

Kenneth S. Fink, MD, MGA, MPH
Director of Health

Draft Permit

DRAFT

CERTIFIED MAIL 24-xxxE CAB
RETURN RECEIPT REQUESTED File No. 0669
(XXXX XXXX XXXX XXXX XXXX)

DATE

Mr. Brian Nakamura
President
R.H.S. Lee, Inc.
96-1414 Waihona Place
Pearl City, Hawaii 96782

Dear Mr. Nakamura:

SUBJECT: Temporary Covered Source Permit (CSP) No. 0669-01-CT
Application No. 0669-03 for Renewal
R.H.S. Lee, Inc.
250 TPH Mobile Crushing and 280 TPH Screening Plant
Located At: Various Temporary Sites, State of Hawaii
Current Location: (Highways-DOT) Ka Uka Yard, Waipio, Island of Oahu
UTM: 4Q; 604,391.24 m E; 2,370,206.24 m N (NAD-83)
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 and specifications that you submitted as part of your application received on December 14, 2021. A receipt for the application filing fee of $500.00 was previously sent to you. This permit supersedes Temporary CSP No. 0669-01-CT issued on December 20, 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

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 (VE):

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. Al Jerome Natac of the Clean Air Branch at (808) 586-4200.

Sincerely,

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

AJN:tkg

Enclosures

ATTACHMENT I: STANDARD CONDITIONS
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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)[2]

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)[2]

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 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)[2]

17. **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)[2]

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)[2]

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))[1]

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, Region 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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[1]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.

[2]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. 0669-01-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. 250 TPH Mobile Crusher (track-mounted), Extec Model No. I-C13, Serial No. 10515 with attached conveyors;
    b. 280 TPH Double Deck Mobile Screen (track-mounted), Extec Model No. S-5, Serial No. 10622 with attached conveyors; and
    c. Water spray system(s).

    (Auth.: HAR §11-60.1-3)

2. An identification tag or name plate shall be displayed on the equipment listed above to show model number, serial number, and manufacturer. 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 are 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)[1]

2. The permittee shall comply with all of the applicable provisions of these standards, including all emission limits, notification, testing, monitoring, and reporting 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)[1]

Section C. Operational and Emission Limitations

1. Fugitive Emission Limits

   The permittee shall not cause to be discharged into the atmosphere from the following plants, fugitive emissions which exhibit greater than fifteen (15) percent opacity from the crusher and ten (10) percent opacity from any transfer point on the belt conveyors, screening operation or from any other affected facility:

   a. 250 TPH crushing plant; and
   b. 280 TPH screening plant.

   (Auth.: HAR §11-60.1-3, §11-60.1-90, §11-60.1-161; 40 CFR §60.672)[1]

2. Fugitive Dust

   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 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 and minimize fugitive dust (e.g., wet suppression, enclosures, dust screens, etc.) at all material transfer points, stockpiles, plant roads, loading and unloading operations, 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. A water spray system shall be maintained and utilized, as necessary, during operation of the crushing plant to ensure compliance with the fugitive emission limits. The water spray system shall be equipped with a non-resetting water flow meter and have water spray bars located at:

      i. Impact crusher; and
      ii. Discharge end of main conveyor.

   d. A water spray system shall be maintained and utilized, as necessary, during operation of the screening plant to ensure compliance with the fugitive emission limits. The water spray system shall have water spray bars located at:

      i. Discharge end of each side conveyor; and
      ii. Discharge end of main conveyor.

   e. 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.

f. The crushing plant or screening plant 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.
g. The water spray system 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.
h. 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 and water spray system 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.

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

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 System

   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. Inspections of the water spray system shall be recorded in the Inspection, Maintenance, and Repair Log of Attachment II, Special Condition No. D.4.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-90)[1]

4. 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)

5. Performance Test

Performance tests shall be conducted on the plant 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. Visible Emissions

Except in those months when performance tests are conducted for fugitive emissions pursuant to Attachment II, Section F, the permittee shall conduct **monthly** (calendar month), VE observations for the crushing and screening plant 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 and U.S. EPA. 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 capacity (ton/hr) of the plant 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 the primary crusher, screen, and a transfer point as applicable, or those points as specified by the Department. 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)[2]

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; 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)[2]

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 Plant

   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 form 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 Testing

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)[1]

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. Annual Performance Testing

   a. The permittee shall conduct or cause to be conducted annual performance tests on the 250 TPH crushing plant and 280 TPH screening plant to determine the opacity of emissions. Tests shall be conducted at each point subject to an opacity limit specified in Special Condition No. C.1.
   b. The tests shall be conducted at the maximum expected operating capacity of the crushing and screening plants.
   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; SIP §11-60-15)[1,2]

2. Performance Test Methods

   a. 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 capacity (tons/hr) of the crushing plant at the time the observations were made.
      iv. The observer shall record the flow rate for the crushing plant's water spray system, in gal/min, servicing the plant.

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 §60.675)[1]

3. Performance Test Expense and Monitoring

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

(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 visible emissions 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; SIP §11-60-15)[1,2]

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, §60.675;
SIP §11-60-15)[1,2]

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.

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.

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**.

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

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.

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.

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

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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[1]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.

[2]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. 0669-01-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 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. The 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 completely 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. 0669-01-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. 0669-01-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 of Health the nature and amounts of emissions.

1. Complete the attached form(s):

   Annual Emissions Report Form: Crushing and Screening Plant

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. 0669-01-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.

(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.

COMPLIANCE CERTIFICATION FORM
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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

Permit term/condition	Equipment	Compliance
All standard conditions	All Equipment listed in the permit	☐ Continuous ☐ Intermittent

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

Permit term/condition	Equipment	Compliance
All monitoring conditions	All Equipment listed in the permit	☐ Continuous ☐ Intermittent
Permit term/condition All recordkeeping conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All reporting conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All testing conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent
Permit term/condition All INSIG conditions	Equipment All Equipment listed in the permit	Compliance ☐ Continuous ☐ Intermittent

COMPLIANCE CERTIFICATION FORM
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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 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.

Permit term/condition	Equipment	Method	Compliance
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent
		☐ monitoring ☐ recordkeeping ☐ reporting ☐ testing ☐ none of the above	☐ Continuous ☐ Intermittent

(Make Additional Copies if Needed)

COMPLIANCE CERTIFICATION FORM
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-CT
(CONTINUED, PAGE ___ OF ___)

Issuance Date: DATE **Expiration Date: DATE**

D. Deviations

Permit Term/ Condition	Equipment / Brief Summary of Deviation	Deviation Period time (am/pm) & date (mo/day/yr)	Date of Written Deviation Report to DOH (mo/day/yr)
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	
		Beginning: Ending:	

(Make Additional Copies if Needed)

CHANGE OF LOCATION REQUEST
FOR A TEMPORARY SOURCE
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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 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:

   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
   _X_ $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, Hawaii 96782

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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 HRS, 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 CSP and all applicable requirements.

CHANGE OF LOCATION REQUEST
FOR A TEMPORARY SOURCE
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-CT
(CONTINUED, PAGE 2 OF 3)

Issuance Date: DATE **Expiration Date: DATE**

(Make Copies for Future Use)

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: _____
   e. Proposed start date at new location: _____
   f. Estimated project duration at new location: _____
   g. Identify other air pollution sources owned and operated by the permittee at the new location, if any: _____
   h. Brief description of the work to be performed: _____

CHANGE OF LOCATION REQUEST
FOR A TEMPORARY SOURCE
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-CT
(CONTINUED, PAGE 3 OF 3)

Issuance Date: DATE **Expiration Date: DATE**

(Make Copies for Future Use)

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 covered source permit at this new location.

Responsible Official (Print):_____ Date:_____

Title:_____

Responsible Official (Signature):_____

ANNUAL EMISSIONS REPORT FORM
CRUSHING AND SCREENING PLANT
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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 Period:_____ Date:_____

Company Name:_____

Facility Name:_____

Equipment Location:_____

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:_____

Responsible Official (Signature):_____

Report the tons of materials processed and air pollution control measures in use for the calendar year:

Type of Operation	Tons of Materials Processed	Air Pollution Control Measures in Use	Control Efficiency (% Reduction)
Truck Unloading			
250 TPH Crushing Plant			
Conveyor Transfer			
280 TPH Screening Plant			
Stockpiles			
Unpaved Roads			

Note: Control measures include water sprays, housing and duct work to baghouses.

Use the following Control Efficiencies, unless documentation is available to show otherwise:

Baghouses: 99%

Water sprays, or Shroud: 70%

*Subsequent transfer points of water sprayed material: 70-(5*n)%*

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.

MONITORING REPORT FORM
OPACITY EXCEEDANCES
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-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 following information **semi-annually**:

(Make Copies for Future Use)

For Period:_____ Date:_____

Company Name: _____

Facility Name:_____

Equipment Location:_____

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:_____

Responsible Official (Signature):_____

Visible Emissions:

Report the following on the lines provided below: all date(s) and six (6) minute average opacity reading(s) which the opacity limit was exceeded during the monthly observations; or if there were no exceedances during the monthly observations, then write “no exceedances” in the comment column.

EQUIPMENT or EMISSION POINT DESCRIPTION	SERIAL/ID NO.	DATE	6 MIN. AVER. (%)	COMMENTS

VISIBLE EMISSIONS FORM REQUIREMENTS
STATE OF HAWAII
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-CT

Issuance Date: DATE **Expiration Date: DATE**

The ***Visible Emissions Form*** shall be completed **monthly** (*each calendar month*) for each equipment subject to opacity limits 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 of Health and the U.S. EPA. 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 of Health, or their representative upon request.

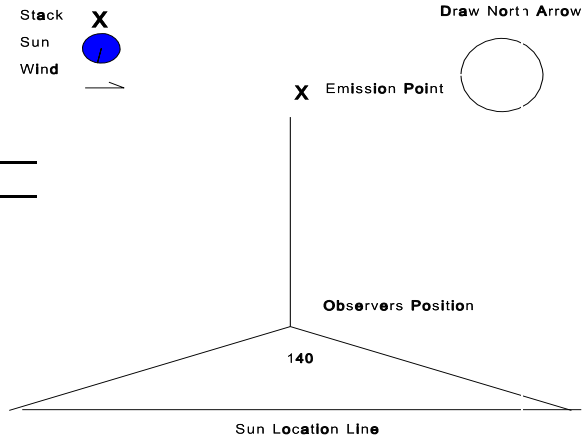
Any required initial and annual performance test performed in accordance with Method 9 by a certified reader shall satisfy the respective equipment's VE monitoring requirements for the month the performance test is performed.

VISIBLE EMISSIONS FORM
TEMPORARY COVERED SOURCE PERMIT NO. 0669-01-CT

Issuance Date: DATE **Expiration Date: DATE**

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

Company Name: R.H.S. Lee, Inc.
For stacks, describe equipment and fuel:
For fugitive emissions from crushers, describe:
Fugitive emission point:
Plant Production (tons/hr):
(During observation)



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 (%F):
Observer Name:
Certified? (Yes/No):

Observation Date and Start Time:

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

Observation Date and Start Time:

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

Draft Review Summary

DRAFT

PERMIT APPLICATION REVIEW
TEMPORARY COVERED SOURCE PERMIT (CSP) No. 0669-01-CT

Application No.:	Application No. 0669-03 for Renewal
Applicant:	R.H.S. Lee, Inc.
Facility:	Mobile Crushing and Screening Plant
SIC Code:	1442 (Construction Sand and Gravel)
Location:	Various Temporary Sites, State of Hawaii
Current Location:	(Highways-DOT) Ka Uka Yard, Waipio, Island of Oahu UTM: 4Q; 604,391.24 m E; 2,370,206.24 m N (NAD-83)
Responsible Official:	Mr. Brian Nakamura President (808) 455-9026
Contact Person:	Wade Higaki R.H.S. Lee, Inc. Employee Contact (808) 455-9026
Mailing Address:	96-1414 Waihona Place Pearl City, Hawaii 96782

Background:

R.H.S. Lee, Inc. submitted a renewal application for Temporary CSP No. 0669-01-CT on December 14, 2021. Equipment to be covered by the permit include one (1) track-mounted 250 TPH Extec Mobile Crusher with exempt 440 HP Caterpillar diesel engine (DE) and one track-mounted 280 TPH Extec Mobile Screen with exempt 99 HP DE located at various locations, State of Hawaii. The crusher and the screen are self-propelled by exempt integrated diesel engines pursuant to Hawaii Administrative Rules (HAR) §11-60.1-82(d)(4) which exempts internal combustion engines propelling mobile sources.

The permit covers operation of a mobile crushing and screening plant for stone processing activities. The equipment is used to crush and screen rock and other materials for construction purposes. Typical material processed consists of basalt rock or concrete. The raw material is deposited into the grizzly feeder by an excavator. From the feeder, it is moved directly into the impact crusher. All material is transported on conveyor belt No. 2 to a stockpile. The side-reject conveyor belt No. 1 is permanently bypassed. Any existing rebar and other material is removed by a built-in magnet. The screen may either be connected to the crusher or operated independently.

There are no proposed changes to the existing equipment operations, limits, terms, and insignificant activities. The applicant requested an alternate operating scenario to replace the DE with another DE of the same size or smaller, with the same or lower emissions should it become necessary due to a breakdown or major overhaul of the permitted engine. This request does not apply as all engines covered under the permit are exempt.

Equipment:

250 TPH Mobile Crushing Plant	Make and Model No.	Serial No.
One (1) 250 TPH Mobile Crusher (track-mounted) with One (1) 440 HP DE and attached conveyors and water sprays	Extec, Model No. I-C13 Caterpillar, Model No. C-13 (Exempt)	10515 LGK02531
One (1) 280 TPH Double Deck Mobile Screen (track-mounted) with One (1) 99 HP DE and attached conveyors and water sprays	Extec, Model No. S-5 Deutz, Model No. BF4M1012 (Exempt)	10622 ---

Applicable Requirements:

Hawaii Administrative Rules (HAR)

- Title 11 Chapter 59, Ambient Air Quality Standards
- Title 11 Chapter 60.1, Air Pollution Control
  - Subchapter 1, General Requirements
  - Subchapter 2, General Prohibitions
    - 11-60.1-31, Applicability
    - 11-60.1-32, Visible Emissions
    - 11-60.1-33, Fugitive Dust
  - Subchapter 5, Covered Sources
  - Subchapter 6, Fees for Covered Sources, Noncovered Sources and Agricultural Burning
    - 11-60.1-111, Definitions
    - 11-60.1-112, General Fee Provisions for Covered Sources
    - 11-60.1-113, Application Fees for Covered Sources
    - 11-60.1-114, Annual Fees for Covered Sources
    - 11-60.1-115, Basis of Annual Fees for Covered Sources
  - Subchapter 8, Standards of Performance for Stationary Sources
    - 11-60.1-161, New Source Performance Standards
  - Subchapter 10, Field Citations

New Source Performance Standards (NSPS)/ National Emission Standards for Hazardous Air Pollutants (NESHAP)
This source is subject to 40 Code of Federal Regulations (CFR) Part 60, NSPS, Subpart OOO – Standards of Performance for Non-metallic Mineral Processing Plants, because the maximum capacity of the crushing plant exceeds 150 TPH and the plant was manufactured after August 31, 1983.

The 250 TPH Extec Mobile Crusher and 280 TPH Extec Mobile Screen were manufactured in 2006. Equipment that commenced construction, modification, or reconstruction on or after April 22, 2008, are subject to more stringent fugitive emission opacity limits.

This source is not subject to 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, because the two (2) exempt DEs propel the tracks of the crusher and screen and are considered nonroad engines as defined in 40 CFR §1068.30. Subpart IIII applies to stationary internal combustion engines that are not nonroad engines.

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

This source is not subject to 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), because the two (2) exempt Des are considered nonroad engines, as defined in 40 CFR §1068.30. Subpart ZZZZ applies to stationary internal combustion engines that are not nonroad engines.

Prevention of Significant Deterioration (PSD)
This source is not subject to PSD requirements because it is not a major stationary source as defined in 40 CFR §52.21 and HAR, Title 11, Chapter 60.1, Subchapter 7 and potential emissions from the facility are less than 250 tons per year, which is the trigger level for a non-listed source.

Compliance Assurance Monitoring (CAM)
This source is not subject to CAM because the facility is not a major source.

The purpose of CAM is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 CFR Part 64, for CAM to be applicable, the emissions unit must:

(1) Be located at a major source;
(2) Be subject to an emissions limit or standard;
(3) Use a control device to achieve compliance;
(4) Have potential pre-control emissions that are one hundred (100) percent of the major source level; and
(5) Not otherwise be exempt from CAM.

Air Emissions Reporting Requirements (AERR)
This source is not subject to AERR, 40 CFR Part 51, Subpart A.

Emissions that can be considered reasonably capturable during rock crushing and screening activities are included in the determination of whether this source is subject to AERR. Fugitive emissions that are not considered reasonably capturable, have not been included in the determination of whether this stationary source is subject to AERR.

The DEs on the 250 TPH mobile crusher and 280 TPH mobile screen are nonroad mobile sources. Emissions from nonroad mobile sources are either reported using the latest Environmental Protection Agency (EPA) developed mobile emissions models or by the state accepting existing EPA emission estimates. For this reason, emissions from the DE are not included in the determination of whether this stationary source is subject to AERR.

Pollutant	Emissions at 8,760 hrs/yr (tons/yr)	AERR Trigger Level (Type B) (tons/yr)
SO_2	-	≥100 TPY
VOC	-	≥100 TPY
NO_x	-	≥100 TPY
CO	-	≥1000 TPY
PM_{10}	2.0	≥100 TPY
$PM_{2.5}$	0.3	≥100 TPY

This table only includes emissions from the permitted equipment that are considered reasonably capturable, which is the crusher.

CAB In-house Annual Emissions Reporting
CAB in-house annual emissions reporting is required for: 1) all facilities holding a CSP; and 2) noncovered source facilities with a potential to emit, based on permit limits, equal to or above the CAB in-house annual emissions reporting trigger levels. The facility is subject to in-house annual emissions reporting because this facility holds a covered source permit.

Best Available Control Technology (BACT)
This source is not subject to a BACT analysis.

A BACT analysis is required for new sources and modifications to sources that have the potential to emit or increase emissions above significant levels, as defined in HAR §11-60.1-1, considering any limitations. A BACT analysis is not required since the applicant is not proposing any modifications.

Insignificant Activities/Exemptions:

1. Two (2) 500-gallon diesel fuel tanks used to store diesel No.2 fuel have a capacity less than 40,000 gallons and are considered insignificant activities in accordance with HAR §11-60.1-82(f)(1).

2. The DEs on the crusher and screen are exempt because the engines propel the equipment.

Alternate Operating Scenarios:

The applicant requested an alternate operating scenario to replace the DE with another DE of the same size or smaller, with the same or lower emissions should it become necessary due to a breakdown or major overhaul of the permitted engine. This request does not apply as all engines covered under the permit are exempt.

Air Pollution Control:

There are no changes to existing air pollution control equipment and monitoring devices listed in the previous permit review. The 250 TPH Extec Mobile Impact Crushing Plant is equipped with a dust suppression system. Water spray nozzles are located at the crusher, the grizzly feeder, the transfer point to the side conveyor, and the discharge end of the main conveyor. A handheld sprayer is also present at the operator platform. Stockpiles, crushing area, and truck access routes/unpaved roads are controlled by a water truck. The permit requires the use of water sprays, as necessary, to minimize fugitive dust at the facility.

Project Emissions:

250 TPH Mobile Crushing Plant with 280 TPH Mobile Screening Plant
The maximum capacity of the plant is 250 TPH based on data submitted by the applicant for the 250 TPH Mobile Crushing Plant. Water sprays will be used to control particulate matter (PM) emissions. Emission factors for the mobile crushing plant were taken from AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations (8/04). Approximately fifty-one (51) percent of particulate emissions are assumed to be PM_{10}. $PM_{2.5}$ assumed to be fifteen (15) percent of particulate emissions per AP-42, Appendix B.2 (1/95).

Crusher and Screen	
Pollutant	Emissions (TPY) (8,760 hr/yr)
PM	5.4
PM_{10}	2.0
$PM_{2.5}$	0.3

Storage Piles
Storage pile emissions are based on emission factors from AP-42, Section 13.2.4 – Aggregate handling and Storage Piles. Water suppression provides seventy (70) percent control efficiency.

Storage Piles	
Pollutant	Emissions (TPY) (8,760 hr/yr)
PM	19.7
PM_{10}	9.3
$PM_{2.5}$	1.4

Vehicle Travel on Unpaved Roads

The maximum capacity of the crusher was used to calculate emissions. A seventy (70) percent control efficiency was assumed for water suppression to control fugitive dust. Emissions were based on emission factors from AP-42, Section 13.2.2 (11/06) – Unpaved Roads.

Vehicle Travel on Unpaved Roads	
Pollutant	Emissions (TPY) (8,760 hr/yr)
PM	10.7
PM_{10}	2.6
$PM_{2.5}$	0.3

Total Facility Emissions

Total Facility Emissions	
Pollutant	Emissions (TPY) (8,760 hr/yr)
PM	35.8
PM_{10}	13.9
$PM_{2.5}$	2.0

Synthetic Minor Source/Major Source Applicability:

A synthetic minor source is a facility that is potentially major, as defined in HAR §11-60.1-1, but is made non-major through federally enforceable permit conditions. This facility is not a synthetic minor source because potential emissions do not exceed major source thresholds when the facility is operated without limitations for 8,760 hours/year.

Pollutant	Emissions Based on 8,760 hrs/yr (tons/yr)	Major Source Trigger (tons/yr)
SO_2	-	≥100
VOC	-	≥100
NO_x	-	≥100
CO	-	≥100
PM	5.4	None
PM_{10}	2.0	≥100
$PM_{2.5}$	0.3	≥100
Total HAPs	-	≥10 single HAP or ≥25 combined HAPs

This table only includes emissions from the permitted equipment that are considered reasonably capturable, which includes the crusher.

Ambient Air Quality Assessment:

An ambient air quality assessment is generally required for new sources or modified sources with emission increases. The R.H.S. Lee, Inc. mobile crushing and screening plant is an existing source and is not proposing any modifications.

Significant Permit Conditions:

The mobile crusher and mobile screen were manufactured in 2006 and are subject to the Subpart OOO visible emission limits for affected sources constructed (i.e. manufactured) before April 22, 2008. Therefore, performance testing, reporting, and record keeping are required in the permit to meet the requirements of 40 CFR 60, Subpart OOO.

1. Fugitive Emission Limits

    a. The permittee shall not cause to be discharged into the atmosphere from the 250 TPH crushing plant, fugitive emissions which exhibit greater than fifteen percent (15) percent opacity.
    b. The permittee shall not cause to be discharged into the atmosphere from any transfer point on the belt conveyors, screening operation, or from any other affected facility, fugitive emissions which exhibit greater than ten (10) percent opacity.

    Reason: 40 CFR 60, Subpart OOO, provisions.

Conclusion and Recommendations:

R.H.S. Lee, Inc. has submitted a permit renewal application with no proposed modifications for a 250 TPH mobile crushing and 280 TPH mobile screening plant. Potential emissions were conservatively based on the maximum rated capacity of the crusher and screening plant at 8,760 hours of operation per year. The facility, if operated in compliance with the conditions of the permit, will be in compliance with state and federal regulations. 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 EPA review period.

Al Jerome Natac
February 23, 2024

Application
and
Supporting Information

0669-03
HAND DELIVERED
DEC 14 2021
CL for MR

R. H. S. LEE, INC.
96-1414 WAIHONA PLACE
PEARL CITY, HI 96782

TELEPHONE
BUSINESS OFFICE (808) 455-9026
DISPATCH OFFICE (808) 456-5988
FAX (808) 455-3850

SCANNED
CL AJN

TRANSMITTAL MEMORANDUM

	State of Hawaii		
To	Department of Health - CAB Office	Date:	12/14/2021
Address	2827 Waimano Home Road	Project:	RHS Lee, Inc.
	Hale Ola Building Room #130		
City	Pearl City, Hawaii 96782		Permit #0669-01-CT
Attention:		Email:	
		Phone:	

We are forwarding the following: X Attached ___ Under Separate Cover

[ ] Drawings	[ ] Material Submittals	[ ] Payment Request
[ ] Specifications	[ ] Change Review	[ ] Work Order
[ ] Shop Drawings	[ ] Change Proposal	[ ] Forms
[ ] Samples	[ ] Change Order	[X] Other

	Copies		Date
	1	**Renewal Application for Temporary Covered Source Permit Permit #0669-01-CT**	
	1	**Check #032222 - Payable to Clean Air Special Fund - COV**	

Remarks:

by: MHigaki

Received by: _____
Date: _____

Wade I Higaki
RHS Lee, Inc.

MD 12386

Application for a Renewal of Temporary Covered Source Permit No. 0669-01-CT Expiry date: December 19, 2022 as required by HAR 11-60.1-101

FACILITY NAME:

250 TPH EXTEC IMPACT CRUSHING PLANT
AND 280 TPH EXTEC SCREENING PLANT
located at
Various Temporary Sites, State of Hawaii

OWNER:

R.H.S. LEE, INC.
96-1414 Waihona Place
Pearl City, HI 96782

December 2, 2021

PREPARED BY:

EMET SERVICES INC.
94-520 Ukee St., Ste.A
Waipahu, HI 96797

INTRODUCTION

This is an application for a renewal of temporary covered source permit no. 0669-01-CT for the 250 TPH Extec Impact Crusher with 440 HP Caterpillar diesel engine, and 280 TPH Extec Double Deck Screening Plant, owned and operated by R.H.S. Lee, Inc., 96-1414 Waihona Place, Pearl City, HI 96782.

This is a straight-forward permit renewal. There are no changes to equipment, operation limitations, standards, or any other existing permit conditions as indicated in permit no. 0669-01-CT, issued December 20, 2017, expiring December 19, 2022.

The 250 TPH Extec I-C13 Mobile Impact Crusher is self-propelled, equipped with tracks. The 440 HP Caterpillar diesel engine powering the crusher is therefore exempt pursuant to HAR 11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

The 99 HP Deutz engine powering the 280 TPH self-propelled Extec Double Deck Screening Plant is an insignificant activity.

Equipment, engine, and location information are on file with the Department of Health, Clean Air Branch.

Request for alternate operating scenario:
The permittee may replace the diesel engine with another diesel engine of the same size or smaller, with the same or lower emissions should this become necessary due to a breakdown or major overhaul of the permitted engine.

TABLE OF CONTENTS

1. STANDARD PERMIT APPLICATION FORM S-1

File/Application No.: **0669-01-CT**

STANDARD PERMIT APPLICATION FORM

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: **R.H.S. LEE, INC.**

2. Facility Name (if different from the Company): **250 TPH EXTEC MOBILE IMPACT CRUSHER AND 280 TPH EXTEC MOBILE SCREENING PLANT**

3. Mailing Address: **96-1414 Waihona Place**

   City: **Pearl City** State: **HI** Zip Code: **96782**

   Phone Number: **(808) 455-9026**

4. Name of Owner/Owner's Agent: **Richard Lee**

   Title: **CEO** Phone: **(808) 455-9026**

   Mailing Address: **96-1414 Waihona Place**

   City: **Pearl City** State: **HI** Zip Code: **96782**

5. Plant Site Manager/Other Contact: **Richard Lee**

   Title: **CEO** Phone: **(808) 455-9026**

   Mailing Address: **96-1414 Waihona Place**

   City: **Pearl City** State: **HI** Zip Code: **96782**

6. Permit Application Basis: (Check One.)

   Initial Permit for a New Source — Initial Permit for an Existing Source
   X Renewal of Existing Permit — General Permit
   Temporary Source — Transfer of Permit
   Modification: ===> Is Modification? Significant Minor Uncertain

7. If renewal or modification, include existing permit number: **0669-01-CT**
8. Does the Proposed Source require a County Special Management Area Permit? Yes **X** No
9. Type of Source (Check One): X Covered Source — Covered and PSD Source
   Noncovered Source — Uncertain
10. Standard Industrial Classification Code (SICC), if known: **1442**

11. Proposed Equipment/Plant Location Address: **on file at the DOH, CAB**

    City: State: **HI** Zip Code:

    UTM Coordinates: **on file at the DOH, CAB**

12. General Nature of Business: **Stone Crushing**

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? **X** No

15. Type of Organization: X 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): **Lee** (First): **Richard** (MI):

Title: **CEO** Phone: **(808) 455-9026**

Mailing Address: **96-1414 Waihona Place**

City: **Pearl City** State: **HI** Zip Code: **96782**

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): **Richard Lee, CEO**

(Signature): Richard Lee Date: 12/14/21

COMPANY NAME: R.H.S. LEE, INC. FILE NO: 0669-01-CT

LOCATION: VARIOUS LOCATIONS, STATE OF HAWAII PAGE 1 OF 2

(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	AIR POLLUTANT EMISSION RATE		UTM COORDINATES			STACK SOURCE PARAMETERS					
STACK NO.	UNIT NO.	EQUIPMENT NAME/ DESCRIPTION AND SICC CODE	EQUIP. DATE	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
		250 TPH EXTEC IMPACT CRUSHER		Fugitive Dust			On	File	At	N/A	N/A	N/A	N/A	N/A	N/A
		(Equipment information is On file at DOH, CAB)					Clean	Air	Branch						
		ACTIVITY			TSP #/HOUR	TSP TPY			PM10 #/HOUR	PM10 TPY	PM2.5 #/HOUR	PM2.5 TPY			
		Uncontrolled Primary Crushing			0.600	2.628			0.600	2.628	0.180	0.788			
		Uncontrolled Conv.Transfer Pts (4)			3.000	13.140			1.100	4.818	0.330	1.445			
		Uncontrolled Truck unloading			0.025	0.110			0.025	0.110	0.008	0.033			
		Total uncontrolled			3.625	15.878			1.725	7.556	0.518	2.266			
		Less Control 70%			2.538	11.115			1.208	5.289	0.363	1.586			
		Total Controlled			1.087	4.763			0.517	2.267	0.155	0.680			
		Uncontrolled Storage Piles			7.090	31.052			3.353	14.687	1.006	4.406			
		Uncontrolled Unpaved Roads			5.431	23.786			1.662	7.282	0.166	0.218			
		Total Uncontrolled			12.521	54.838			5.015	21.969	1.172	4.624			
		Less Control 70%			8.765	38.387			3.511	15.378	0.820	3.237			
		Total Controlled			3.756	16.451			1.504	6.591	0.352	1.387			

COMPANY NAME: R.H.S. LEE, INC. FILE NO: 0669-01-CT

LOCATION: VARIOUS LOCATIONS, STATE OF HAWAII PAGE 2 OF 2

(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	AIR POLLUTANT EMISSION RATE		UTM COORDINATES			STACK SOURCE PARAMETERS					
STACK NO.	UNIT NO.	EQUIPMENT NAME/ DESCRIPTION AND SICC CODE	EQUIP. DATE	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
		280 TPH EXTEC SCREENING PLANT		Fugitive Dust			On	File	At	N/A	N/A	N/A	N/A	N/A	N/A
		(Equipment Information On file at DOH, CAB)					Clean	Air	Branch						
		ACTIVITY			TSP #/HOUR	TSP TPY			PM10 #/HOUR	PM10 TPY	PM2.5 #/HOUR	PM2.5 TPY			
		Uncontrolled Screening			7.000	30.660			2.436	10.670	0.731	3.201			
		Uncontrolled Conv.Transfer Pts (4)			3.360	14.717			1.232	5.396	0.370	1.619			
		Uncontrolled Truck unloading			0.028	0.123			0.028	0.123	0.008	0.037			
		Total uncontrolled			10.388	45.500			3.696	16.189	1.109	4.857			
		Less Control 70%			7.272	31.850			2.587	11.332	0.776	3.400			
		Total Controlled			3.116	13.650			1.109	4.857	0.333	1.457			
		Uncontrolled Storage Piles			7.940	34.779			3.756	16.449	1.127	4.935			
		Uncontrolled Unpaved Roads			6.082	26.641			1.862	8.155	0.186	0.279			
		Total Uncontrolled			14.022	61.420			5.618	24.604	1.313	5.214			
		Less Control 70%			9.815	42.994			3.933	17.223	0.919	3.650			
		Total Controlled			4.207	18.426			1.685	7.381	0.394	1.564			

File No.: **0669-01-CT**

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
- X 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?

   X 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
40 Code of Federal Regulations (CFR) Part 60 – Standards of Performance for New Stationary Sources
Subpart A – General Provisions
Subpart OOO – 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.

R.H.S. LEE INC. states that the plant to be covered under this application is 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.

Description of Remedial Action	of Completion
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:

Applicable Requirement	Effective Date	Currently in Compliance?
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:

Description of Proposed Action/Steps to Achieve Compliance	Expected Date of Achieving Compliance
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.

Description of Remedial Action	of Completion
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: (less than or equal to 6 months) Beginning Date:

   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): **Richard Lee, CEO**

(Signature): Richard Lee Date: 12/14/21

File No.: **0669-01-CT**

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;

X Application for a Covered Source Permit Renewal; and

- 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): **Richard Lee, CEO**

(Signature): Richard Lee Date: 12/14/21

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: **250 TPH Extec Impact Crusher with 440 HP Caterpillar Diesel Engine, and 280 TPH Extec Screening Plant**

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**

40 Code of Federal Regulations (CFR) Part 60 – Standards of Performance for New Stationary Sources
- **Subpart A – General Provisions**
- **Subpart OOO – 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)?

      X YES ◊ NO

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

      X 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
Sulfur in Fuel tested by Supplier
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

FOR AGENCY USE ONLY:

File/Application No.:

Issued:

Date Received:

HAR 11-60.1-101
Covered Source Permit Renewal Application

HAR 11-60.1-101 (a) (1) Company & Facility Information

For company and facility information please see Form S-1 on page 5.

HAR 11-60.1-101 (a) (2) Certification Statement

The responsible person herewith certifies that no changes have been made in the design or operation of the source as proposed in the initial and any subsequent covered source permit applications.

I certify that I have knowledge of the facts herein set forth, 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: Mr. Richard Lee, CEO

Signature: _____ Date: _____

The following equipment is listed on the existing permit no. 0669-01-CT and is to be permitted with this renewal application:

Permit no. 0669-01-CT, Attachment II, Section A, 1:

a. 250 TPH Mobile Crusher, Model No. Extec I-C13, Serial No. 10515 with attached conveyors;

b. 280 TPH Mobile Screen, Model No. Extec S-5, Serial No. 10622 with attached conveyors; and

c. Various water sprays.

HAR 11-60.1-101 (a) (3) Compliance Plan

Please see page 9 for the signed compliance plan.

HAR 11-60.1-101 (a) (4) Compliance Certification

Please see page 12 for the signed compliance certification.

HAR 11-60.1-101 (a) (5) Other Information

Exemption:
The 250 TPH Extec I-C13 Mobile Impact Crusher is self-propelled, equipped with tracks. The 440 HP Caterpillar diesel engine powering the crusher is therefore exempt pursuant to HAR 11-60.1-82(d)(4), which exempts internal combustion engines propelling mobile sources.

Diesel Engine Information:

MANUFACTURER	: CATERPILLAR
MODEL	: C-13
SERIAL NUMBER	: LGK02531
DESIGN CAPACITY	: 440 HP
FUEL TYPE	: Fuel Oil #2 (max. 0.015% sulfur by weight)
MAX. FUEL CONSUMPTION	: 22.7 gallons/hour

Insignificant Activity (as per HAR 11-60.1-82 (f)):
The 99 HP Deutz engine powering the 280 TPH self-propelled Extec Double Deck Screening Plant is an insignificant activity.

Two (2) diesel fuel tanks with capacities of less than 500 gallons each.

Equipment Information is on file at the Department of Health (DOH), Clean Air Branch (CAB).

Detailed Description of Processes and Products:

Standard Industrial Classification Code (SICC) : 1442

There are no changes to existing permitted processes and products.

Material to be processed consists of basalt rock or concrete.

The raw material is dumped into the grizzly feeder by an excavator. From the feeder it is moved directly into the impact crusher. All material is transported on conveyor belt #2 to a stockpile. The side-reject conveyor belt #1 is permanently bypassed.

Rebar and other metal is removed by a built-in magnet.

The Screen may be connected to the crusher or may operate independently.

Air Pollution Control & Estimate of Emissions:

There are no changes to existing air pollution control equipment & monitoring devices.

Pollutants from the facility are fugitive dust.

The 250 TPH Extec Impact Crushing Plant is equipped with a dust suppression system. Water spray nozzles are located at the crusher, the grizzly feeder, the transfer point to the side conveyor, and the discharge end of the main conveyor. There is also a hand-held sprayer at the operator platform.
Stockpiles, crushing area and truck access routes are controlled by a water truck. No changes have been made to the plant as submitted with the original permit application.

Details are on file with the DOH, CAB, under permit no. 0669-01-CT.

Maximum Potential Fugitive Dust (TSP) Emissions from plant before and after Control in tons/year (TPY):

Pollutant	Crusher	Screener	Total
TSP uncontrolled	**15.878**	**45.500**	**61.378**
TSP controlled	**4.763**	**13.650**	**18.413**
PM10 uncontrolled	**7.556**	**16.189**	**23.745**
PM10 controlled	**2.267**	**4.857**	**7.124**
PM2.5 uncontrolled	**2.266**	**4.857**	**7.123**
PM2.5 controlled	**0.680**	**1.457**	**2.137**

Maximum Potential Fugitive Dust (TSP) Emissions from Stockpiles and Unpaved Roads before and after Control in tons/year (TPY)

Pollutant	Crusher	Screener	Total
TSP uncontrolled	**54.838**	**61.420**	**116.258**
TSP controlled	**16.451**	**18.426**	**34.877**
PM10 uncontrolled	**21.969**	**24.604**	**46.573**
PM10 controlled	**6.591**	**7.381**	**13.972**
PM2.5 uncontrolled	**4.624**	**5.214**	**9.838**
PM2.5 controlled	**1.387**	**1.564**	**2.951**

Controlled fugitive plant emissions in tons per year:

Crusher Emissions and Trigger Levels (TPY)					
Pollutant	**Emissions (No Limits)**	**BACT Significant Levels**	**AERR Thresholds**	**DOH Levels**	**Wind Erosion And Vehicle Travel Emissions**
CO	0	100	1000	250	0
NO_X	0	40	100	25	0
SO_2	0	40	100	25	0
PM	**18.413**	25	-	25	**34.877**
PM10	**7.124**	15	100	25	**13.972**
PM2.5	**2.137**	10	100	-	**2.951**
VOC	0	40	100	25	0
HAPs	0	-	-	5	0

For detailed calculations, please refer to appendix B, Annual Emissions Calculations on page 24.

Typical Operating Schedules:

The plant does not operate on a typical schedule since it is employed on different job sites depending on job availability. Operation is irregular.

Once installed at a job site, the plant typically operates as follows:

8 Hours per day, 5 days per week

Length of operation per job varies from a few weeks to several months. Typically there are times when the plant sits idle.

When operating, the following production hours might be expected:
8 hours / day
40 hours / week
2080 hours / year

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
40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS)
Subpart A, General Provisions
Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants.

Compliance:

11-60.1-32 & 33:
Visible emissions and fugitive dust are controlled through the use of water sprays and water trucks or municipal water supply if available.
11-60.1-81 & 91:
The plant is subject to annual opacity testing, following EPA method #9.

Exemptions:

None, except for the Caterpillar C-13 diesel engine mentioned above.

Current Operational Limitations or Work Practices:

There shall be no operating hour restrictions for the plant covered under this permit.
The diesel engines shall be fired only on ULSD fuel oil no. 2 with a maximum sulfur content not to exceed 0.0015% by weight.

Request for alternate operating scenario:
The permittee may replace the diesel engine with another diesel engine of the same size or smaller, with the same or lower emissions should this become necessary due to a breakdown or major overhaul of the permitted engine.

Schedule for Construction or Modification:

Not applicable, this is a permit renewal and the plant covered under this permit is already operating.

Existing Covered Sources: Ambient Air Quality Impact Assessment:

There are only fugitive emissions of PM, PM10, and PM2.5. The DOH, CAB usually does not require any ambient air quality impact assessment for fugitive emissions. Since the diesel engine is exempt, there are no point emissions.

New Covered Sources: Ambient Air Quality Impact Assessment:

Not applicable, this is a permit renewal.

New Covered Sources: Requirements of 11-60.1, Subchapter 7:

Subchapter 7 applies to major sources only. This source is not a major source as defined in 11-60.1-131.

Emissions Trading:

Not applicable.

HAR 11-60.1-113 Application Fees for Covered Sources

HAR 11-60.1-113 (b) (4) (C) Renewal of a non-toxic temporary covered source

The application fee of $ 500.00 for a temporary covered source permit renewal is enclosed.

Check No 3222 dated 12/6/2021 made payable to:

CLEAN AIR SPECIAL FUND-COV

APPENDIX A

LOCATION & SITE MAPS

The present location of the plant is on file at the Department of Health, Clean Air Branch under permit no. 0669-01-CT.

APPENDIX B

POTENTIAL ANNUAL EMISSIONS CALCULATIONS

Potential Annual Fugitive Dust Emissions for 250 TPH Extec Impact Crushing Plant

Calculation Basis:

Maximum Processing rate : 250 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/O6

Controlled Fugitive Emissions of Particulate Matter (TSP):

Activity	SCC	(lb/hr)	(tpy)
Primary Crushing uncontrolled	3-05-020-01	0.600	2.628
Conveyor Transfer Point uncontr. (4)	3-05-020-06	3.000	13.140
Truck unloading uncontrolled	3-05-020-32	0.025	0.110
Total uncontrolled		**3.625**	**15.878**
Less Control 70%		2.538	11.115
TOTAL CONTROLLED		**1.087**	**4.763**
Storage Piles uncontrolled		7.090	31.052
Unpaved Roads uncontrolled		5.431	23.786
Total uncontrolled		**12.521**	**54.838**
Less Control 70%		8.765	38.387
TOTAL CONTROLLED		**3.756**	**16.451**

Controlled Fugitive Emissions of Particulate Matter (PM10):

Activity	SCC	(lb/hr)	(tpy)
Primary Crushing uncontrolled	3-05-020-01	0.600	2.628
Conveyor Transfer Point uncontr. (4)	3-05-020-06	1.100	4.818
Truck unloading uncontrolled	3-05-020-32	0.025	0.110
Total uncontrolled		**1.725**	**7.556**
Less Control 70%		1.208	5.289
TOTAL CONTROLLED		**0.517**	**2.267**
Storage Piles uncontrolled		3.353	14.687
Unpaved Roads uncontrolled		1.662	7.282
Total uncontrolled		**5.015**	**21.969**
Less Control 70%		3.511	15.378
TOTAL CONTROLLED		**1.504**	**6.591**

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

Activity	SCC	(lb/hr)	(tpy)
Primary Crushing uncontrolled	3-05-020-01	0.180	0.788
Conveyor Transfer Point uncontr. (4)	3-05-020-06	0.330	1.445
Truck unloading uncontrolled	3-05-020-32	0.008	0.033
Total uncontrolled		**0.518**	**2.266**
Less Control 70%		0.363	1.586
TOTAL CONTROLLED		**0.155**	**0.680**
Storage Piles uncontrolled		1.006	4.406
Unpaved Roads uncontrolled		0.166	0.218
Total uncontrolled		**1.172**	**4.624**
Less Control 70%		0.820	3.237
TOTAL CONTROLLED		**0.352**	**1.387**

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.

Potential Annual Fugitive Dust Emissions
for
280 TPH Extec Screening Plant

Calculation Basis:

Maximum Processing rate : 280 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/O6

Controlled Fugitive Emissions of Particulate Matter (TSP):

Activity	SCC	(lb/hr)	(tpy)
Screening uncontrolled	3-05-020-01	7.000	30.660
Conveyor Transfer Point uncontr. (4)	3-05-020-06	3.360	14.717
Truck unloading uncontrolled	3-05-020-32	0.028	0.123
Total uncontrolled		**10.388**	**45.500**
Less Control 70%		7.272	31.850
TOTAL CONTROLLED		**3.116**	**13.650**
Storage Piles uncontrolled		7.940	34.779
Unpaved Roads uncontrolled		6.082	26.641
Total uncontrolled		**14.022**	**61.420**
Less Control 70%		9.815	42.994
TOTAL CONTROLLED		**4.207**	**18.426**

Controlled Fugitive Emissions of Particulate Matter (PM10):

Activity	SCC	(lb/hr)	(tpy)
Screening uncontrolled	3-05-020-01	2.436	10.670
Conveyor Transfer Point uncontr. (54)	3-05-020-06	1.232	5.396
Truck unloading uncontrolled	3-05-020-32	0.028	0.123
Total uncontrolled		**3.696**	**16.189**
Less Control 70%		2.587	11.332
TOTAL CONTROLLED		**1.109**	**4.857**
Storage Piles uncontrolled		3.756	16.449
Unpaved Roads uncontrolled		1.862	8.155
Total uncontrolled		**5.618**	**24.604**
Less Control 70%		3.933	17.223
TOTAL CONTROLLED		**1.685**	**7.381**

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

Activity	SCC	(lb/hr)	(tpy)
Screening uncontrolled	3-05-020-01	0.731	3.201
Conveyor Transfer Point uncontr. (4)	3-05-020-06	0.370	1.619
Truck unloading uncontrolled	3-05-020-32	0.008	0.037
Total uncontrolled		**1.109**	**4.857**
Less Control 70%		0.776	3.400
TOTAL CONTROLLED		**0.333**	**1.457**
Storage Piles uncontrolled		1.127	4.935
Unpaved Roads uncontrolled		0.186	0.279
Total uncontrolled		**1.313**	**5.214**
Less Control 70%		0.919	3.650
TOTAL CONTROLLED		**0.394**	**1.564**

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.

Calculations of Emissions for Crushed Stone Processing Operations					
Client:	R.H.S. LEE INC				Date:
Facility:	250 TPH EXTEC IMPACT CRUSHER				10/9/2021
Permit No.:	0669-01-CT			JOB#	2110047

Annual Production Rate Calculations:				Annual Production (tpy)	Annual Production (cy/year)
INPUT FIELDS:		hrs/year	8760		
cy/hr	0	tons/hr	250		
		Transfer Points	4	2,190,000	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	1.350	5.913
Tertiary Crushing contr.	3-05-020-03	0.00120	0.300	1.314
Fines Crushing	3-05-020-05	0.03900	9.750	42.705
Fines Crushing contr.	3-05-020-05	0.00300	0.750	3.285
Screening	3-05-020-02,03	0.02500	6.250	27.375
Screening contr.	3-05-020-02,03	0.00220	0.550	2.409
Fines Screening	3-05-020-21	0.30000	75.000	328.500
Fines Screening contr.	3-05-020-21	0.00360	0.900	3.942
Conveyor Transfer Point	3-05-020-06	0.00300	0.750	3.285
Conv. Transfer Point contr.	3-05-020-06	0.00014	0.035	0.153
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	0.750	Total:	3
No of Points:	4	tons/year per poin	3.285	Total:	13.14

EMISSION CALCULATIONS FOR STORAGE PILES ONLY:

Wind Erosion from Storage Piles (AP42, 13.2.4, 11/06):

Formula: E = k(0.0032) x [((U/5)**1.3)) / ((M/2)**1.4)]

where: E=emission factor, k=particle size multiplier(dimensionless)

U=mean wind speed (mph), M=material moisture content (%

Average Annual Windspeeds for Hawaii (AP42,7.1-9)

Hilo	7.2 mph
Honolulu	11.4 mph
Kahului	12.8 mph
Lihue	12.2 mph
State Average	10.9 mbh

k (TSP)	k (PM-10)	U	M
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

Emission Factor lb/ton:		Ann.Prod.		Total TSP (lb/hr)	Total TSP (tpy)
PM-10	0.013	(tpy)			
TSP	0.028	2,190,000		7.090	31.052
TOTAL TSP CONTROLLED (-70%)FOR STORAGE PILES				2.127	9.316
PM-10 UNCONTROLLED:		14.687	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	0.600	2.628
*Primary Crushing contr.	3-05-020-01	0.00054	0.135	0.591
*Secondary Crushing	3-05-020-02	0.00240	0.600	2.628
*Secondary Crushing contr.	3-05-020-02	0.00054	0.135	0.591
Tertiary Crushing	3-05-020-03	0.00240	0.600	2.628
Tertiary Crushing contr.	3-05-020-03	0.00054	0.135	0.591
Fines Crushing	3-05-020-05	0.01500	3.750	16.425
Fines Crushing contr.	3-05-020-05	0.00120	0.300	1.314
Screening	3-05-020-02,03	0.00870	2.175	9.527
Screening contr.	3-05-020-02,03	0.00074	0.185	0.810
Fines Screening	3-05-020-21	0.07200	18.000	78.840
Fines Screening contr.	3-05-020-21	0.00220	0.550	2.409
Conveyor Transfer Point	3-05-020-06	0.00110	0.275	1.205
Conv. Transfer Point contr.	3-05-020-06	4.60E-05	0.012	0.050
Wet Drilling - Unfrag.Stone	3-05-020-10	8.00E-05	0.020	0.088
Truck unload - Fragm.Stone	3-05-020-31	1.60E-05	0.004	0.018
Truck unload - conv.crushed	3-05-020-32	0.00010	0.025	0.110

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	0.275	Total:	**1.100**
No of Points:	4	tons/year per poin	1.205	Total:	**4.818**

EMISSION CALCULATIONS FOR STORAGE PILES ONLY:

Wind Erosion from Storage Piles (AP42, 13.2.4):

Formula: E = k(0.0032) x [((U/5)**1.3)) / ((M/2)**1.4)]

where: E=emission factor, k=particle size multiplier(dimensionless)

U=mean wind speed (mph), M=material moisture content (%

Average Annual Windspeeds for Hawaii (AP42,7.1-9)

Hilo	7.2 mph
Honolulu	11.4 mph
Kahului	12.8 mph
Lihue	12.2 mph
State Average	10.9 mbh

k (TSP)	k (PM-10)	U	M
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

Emission Factor lb/ton:		**Ann.Prod.**		**Total PM-10 (lb/hr)**	**Total PM-10 (tpy)**
PM-10	**0.013**	**(tpy)**			
TSP	**0.028**	**2,190,000**		**3.353**	**14.687**
PM-10 CONTROLLED (-70%)FOR STORAGE PILES				1.006	4.406

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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 (lb/ton)	lbs/hour	Tons/Year
Primary Crushing*	3-05-020-01	0.00072	**0.180**	**0.788**
Primary Crushing contr.	3-05-020-01	0.00016	0.041	0.177
Secondary Crushing*	3-05-020-02	0.00072	0.180	0.788
Secondary Crushing contr.	3-05-020-02	0.00016	0.041	0.177
Tertiary Crushing*	3-05-020-03	0.00072	0.180	0.788
Tertiary Crushing contr.	3-05-020-03	0.00016	0.041	0.177
Fines Crushing*	3-05-020-05	0.00450	1.125	4.928
Fines Crushing contr.	3-05-020-05	0.00036	0.090	0.394
Screening*	3-05-020-02,03	0.00261	0.653	2.858
Screening contr.	3-05-020-02,03	0.00022	0.056	0.243
Fines Screening*	3-05-020-21	0.02160	5.400	23.652
Fines Screening contr.*	3-05-020-21	0.00066	0.165	0.723
Conveyor Transfer Point*	3-05-020-06	0.00033	0.083	0.361
Conv. Transfer Point contr.	3-05-020-06	1.38E-05	0.003	0.015
Wet Drilling - Unfrag.Stone*	3-05-020-10	2.40E-05	0.006	0.026
Truck unload - Fragm.Stone*	3-05-020-31	4.80E-06	0.001	0.005
Truck unload - conv.crushed*	3-05-020-32	0.00003	**0.008**	**0.033**

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

Storage Piles

	Emission PM10	Emission PM2.5	
lbs/hour	3.353	**1.006**	(PM10 emissions x 0.3)
tons/year	14.687	**4.406**	(PM10 emissions x 0.3)

Un-Controlled Emission Calculations for multiple Transfer Points:

No of Points:	4	lbs/hr per point	8.25E-02	Total:	**0.330**
No of Points:	4	tons/year per point	3.61E-01	Total:	**1.445**

Calculations of PM30 (TSP) Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	250 TPH EXTEC IMPACT CRUSHER				
Date:	10/9/2021	PERMIT NO.:	0669-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
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**		**Result:**
S (mean vehicle speed) (mph)	**10**		**(lb/VMT)**
p (# of days with 0.01" of rain/year)*	**85**	**PM-30**	**4.562**

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
250	8760	21	0.1		**10428.6**

Uncontrolled PM30 in tons per year for unpaved roads:	**23.786**
Controlled PM30 (tpy) for unpaved roads (-70%):	**7.136**
Uncontrolled PM30 in lbs/hr	**5.431**
Controlled PM30 in lbs/hr	**1.629**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

Calculations of PM10 Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	250 TPH EXTEC IMPACT CRUSHER				
Date:	10/9/2021	PERMIT NO.	0536-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
Average vehicle weight: 26.5 t

Input:

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**		**Result:**
S (mean vehicle speed) (mph)	**10**		**(lb/VMT)**
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
250	8760	21	0.1		**10428.6**

Uncontrolled PM10 in tons per year for unpaved roads:	**7.282**
Controlled PM10 (tpy) for unpaved roads (-70%):	**2.184**
Uncontrolled PM10 in lbs/hr	**1.662**
Controlled PM10 in lbs/hr	**0.499**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

Calculations of PM2.5 Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	250 TPH EXTEC IMPACT CRUSHER				
Date:	10/9/2021	PERMIT NO.:	0669-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
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**		**Result:**
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
250	8760	21	0.1		**10428.6**

Uncontrolled PM30 in tons per year for unpaved roads:	**0.728**
Controlled PM30 (tpy) for unpaved roads (-70%):	**0.218**
Uncontrolled PM30 in lbs/hr	**0.166**
Controlled PM30 in lbs/hr	**0.050**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

Calculations of Emissions for Crushed Stone Processing Operations					
Client:	R.H.S. LEE INC				Date:
Facility:	280 TPH EXTEC SCREENING PLANT				10/9/2021
Permit No.:	0669-01-CT			JOB#	2110047

Annual Production Rate Calculations:				Annual Production (tpy)	Annual Production (cy/year)
INPUT FIELDS:		hrs/year	8760		
cy/hr	0	tons/hr	280		
		Transfer Points	4	2,452,800	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	1.512	6.623
Tertiary Crushing contr.	3-05-020-03	0.00120	0.336	1.472
Fines Crushing	3-05-020-05	0.03900	10.920	47.830
Fines Crushing contr.	3-05-020-05	0.00300	0.840	3.679
Screening	3-05-020-02,03	0.02500	**7.000**	**30.660**
Screening contr.	3-05-020-02,03	0.00220	0.616	2.698
Fines Screening	3-05-020-21	0.30000	84.000	367.920
Fines Screening contr.	3-05-020-21	0.00360	1.008	4.415
Conveyor Transfer Point	3-05-020-06	0.00300	0.840	3.679
Conv. Transfer Point contr.	3-05-020-06	0.00014	0.039	0.172
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	0.840	Total:	**3.36**
No of Points:	4	tons/year per poin	3.679	Total:	**14.717**

EMISSION CALCULATIONS FOR STORAGE PILES ONLY:

Wind Erosion from Storage Piles (AP42, 13.2.4, 11/06):

Formula: E = k(0.0032) x [((U/5)**1.3)) / ((M/2)**1.4)]

where: E=emission factor, k=particle size multiplier(dimensionless)
U=mean wind speed (mph), M=material moisture content (%

Average Annual Windspeeds for Hawaii (AP42,7.1-9)

Hilo	7.2 mph
Honolulu	11.4 mph
Kahului	12.8 mph
Lihue	12.2 mph
State Average	10.9 mbh

k (TSP)	k (PM-10)	U	M
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

Emission Factor lb/ton:		Ann.Prod.		Total TSP (lb/hr)	Total TSP (tpy)
PM-10	0.013	(tpy)			
TSP	0.028	2,452,800		**7.940**	**34.779**
TOTAL TSP CONTROLLED (-70%)FOR STORAGE PILES				2.382	10.434
PM-10 UNCONTROLLED:		16.449	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	0.672	2.943
*Primary Crushing contr.	3-05-020-01	0.00054	0.151	0.662
*Secondary Crushing	3-05-020-02	0.00240	0.672	2.943
*Secondary Crushing contr.	3-05-020-02	0.00054	0.151	0.662
Tertiary Crushing	3-05-020-03	0.00240	0.672	2.943
Tertiary Crushing contr.	3-05-020-03	0.00054	0.151	0.662
Fines Crushing	3-05-020-05	0.01500	4.200	18.396
Fines Crushing contr.	3-05-020-05	0.00120	0.336	1.472
Screening	3-05-020-02,03	0.00870	**2.436**	**10.670**
Screening contr.	3-05-020-02,03	0.00074	0.207	0.908
Fines Screening	3-05-020-21	0.07200	20.160	88.301
Fines Screening contr.	3-05-020-21	0.00220	0.616	2.698
Conveyor Transfer Point	3-05-020-06	0.00110	0.308	1.349
Conv. Transfer Point contr.	3-05-020-06	4.60E-05	0.013	0.056
Wet Drilling - Unfrag.Stone	3-05-020-10	8.00E-05	0.022	0.098
Truck unload - Fragm.Stone	3-05-020-31	1.60E-05	0.004	0.020
Truck unload - conv.crushed	3-05-020-32	0.00010	**0.028**	**0.123**

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	0.308	Total:	**1.232**
No of Points:	4	tons/year per poin	1.349	Total:	**5.396**

EMISSION CALCULATIONS FOR STORAGE PILES ONLY:

Wind Erosion from Storage Piles (AP42, 13.2.4):

Formula: E = k(0.0032) x [((U/5)**1.3)) / ((M/2)**1.4)]

where: E=emission factor, k=particle size multiplier(dimensionless)
U=mean wind speed (mph), M=material moisture content (%

Average Annual Windspeeds for Hawaii (AP42,7.1-9)

Hilo	7.2 mph
Honolulu	11.4 mph
Kahului	12.8 mph
Lihue	12.2 mph
State Average	10.9 mbh

k (TSP)	k (PM-10)	U	M
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

Emission Factor lb/ton:		Ann.Prod.		Total PM-10 (lb/hr)	Total PM-10 (tpy)
PM-10	0.013	(tpy)			
TSP	0.028	2,452,800		**3.756**	**16.449**
PM-10 CONTROLLED (-70%)FOR STORAGE PILES				1.127	4.935

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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 (lb/ton)	lbs/hour	Tons/Year
Primary Crushing*	3-05-020-01	0.00072	0.202	0.883
Primary Crushing contr.	3-05-020-01	0.00016	0.045	0.199
Secondary Crushing*	3-05-020-02	0.00072	0.202	0.883
Secondary Crushing contr.	3-05-020-02	0.00016	0.045	0.199
Tertiary Crushing*	3-05-020-03	0.00072	0.202	0.883
Tertiary Crushing contr.	3-05-020-03	0.00016	0.045	0.199
Fines Crushing*	3-05-020-05	0.00450	1.260	5.519
Fines Crushing contr.	3-05-020-05	0.00036	0.101	0.442
Screening*	3-05-020-02,03	0.00261	**0.731**	**3.201**
Screening contr.	3-05-020-02,03	0.00022	0.062	0.272
Fines Screening*	3-05-020-21	0.02160	6.048	26.490
Fines Screening contr.*	3-05-020-21	0.00066	0.185	0.809
Conveyor Transfer Point*	3-05-020-06	0.00033	0.092	0.405
Conv. Transfer Point contr.	3-05-020-06	1.38E-05	0.004	0.017
Wet Drilling - Unfrag.Stone*	3-05-020-10	2.40E-05	0.007	0.029
Truck unload - Fragm.Stone*	3-05-020-31	4.80E-06	0.001	0.006
Truck unload - conv.crushed*	3-05-020-32	0.00003	**0.008**	**0.037**

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

Storage Piles

	Emission PM10	Emission PM2.5	
lbs/hour	3.756	**1.127**	(PM10 emissions x 0.3)
tons/year	16.449	**4.935**	(PM10 emissions x 0.3)

Un-Controlled Emission Calculations for multiple Transfer Points:

No of Points:	4	lbs/hr per point	9.24E-02	Total:	**0.370**
No of Points:	4	tons/year per point	4.05E-01	Total:	**1.619**

Calculations of PM30 (TSP) Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	280 TPH EXTEC SCREENING PLANT				
Date:	10/9/2021	PERMIT NO.:	0669-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
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**		**Result:**
S (mean vehicle speed) (mph)	**10**		**(lb/VMT)**
p (# of days with 0.01" of rain/year)*	**85**	**PM-30**	**4.562**

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
280	8760	21	0.1		**11680.0**

Uncontrolled PM30 in tons per year for unpaved roads:	**26.641**
Controlled PM30 in lbs/hr	**7.992**
Uncontrolled PM30 in lbs/hr	**6.082**
Controlled PM30 in lbs/hr	**1.825**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

Calculations of PM10 Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	280 TPH EXTEC SCREENING PLANT				
Date:	10/9/2021	PERMIT NO.:	0536-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
Average vehicle weight: 26.5 t

Input:

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**		**Result:**
S (mean vehicle speed) (mph)	**10**		**(lb/VMT)**
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
280	8760	21	0.1		**11680.0**

Uncontrolled PM10 in tons per year for unpaved roads:	**8.155**
Controlled PM10 (tpy) for unpaved roads (-70%):	**2.447**
Uncontrolled PM10 in lbs/hr	**1.862**
Controlled PM10 in lbs/hr	**0.559**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

Calculations of PM2.5 Emissions for Unpaved Roads					
Client:	R.H.S. LEE INC.				
Facility:	280 TPH EXTEC SCREENING PLANT				
Date:	10/9/2021	PERMIT NO.:	0669-01-CT	JOB #	2110047

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:
Average weight empty: 16 t
Average weight full: 37 t
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**		**Result:**
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
280	3000	21	0.1		**4000.0**

Uncontrolled PM30 in tons per year for unpaved roads:	**0.279**
Controlled PM30 (tpy) for unpaved roads (-70%):	**0.084**
Uncontrolled PM30 in lbs/hr	**0.186**
Controlled PM30 in lbs/hr	**0.056**

***Station:(511918) Honolulu Obsry 702.2 (1962-2012)**

APPENDIX C

EQUIPMENT INFORMATION & DATA

Equipment information is on file at the Department of Health, Clean Air Branch under permit no. 0669-01-CT.