PROPOSED

DATE

CERTIFIED MAIL 08-E CAB
RETURN RECEIPT REQUESTED File No. 0454
(xxxx)

Mr. Edwin DeLuz
Managing Member
Edwin DeLuz Trucking and Gravel, LLC
P. O. Box 406
Paauilo, Hawaii 96776

Dear Mr. DeLuz:

Subject: Covered Source Permit (CSP) No. 0454-01-C
Modification-Renewal Application No. 0454-02
Edwin DeLuz Trucking and Gravel, LLC
750 TPH Stone Quarrying and Processing Plant
with a 1390 HP Diesel Engine Generator
Located at: Kapo'aula, Hamakua, Hawaii
TMK (3) 4-07-07 Portion of 11
Date of Expiration: 5 years from issue date

The subject Covered Source Permit is issued in accordance with Hawaii Administrative Rules, Title 11, Chapter 60.1. The issuance of this permit is based on the plans, specifications, and information that you submitted as part of your application received on May 17, 2007, and additional information received on September 29, 2008. This permit supersedes in its entirety CSP No. 0454-01-CT, issued on June 30, 2003.

The Covered Source Permit is issued subject to the conditions/requirements set forth in the following Attachments:

Attachment I: Standard Conditions
Attachment II: Special Conditions
Attachment III: Annual Fee Requirements
Attachment IV: Annual Emissions Reporting Requirements

The forms for submission are as follows:

Compliance Certification Form
Monitoring Report Forms: Operating Hours - Diesel Engine Generator
Diesel Engine Generator Fuel Certification
Opacity Exceedances
Visible Emissions - Stone Quarrying and Processing Plant
Visible Emissions - Diesel Engine Generator

PROPOSED

Annual Emissions Report Forms: Stone Quarrying and Processing Plant
Diesel Engine Generator

Also enclosed are the following for your use in monitoring visible emissions:

Visible Emissions Form Requirements State of Hawaii
Visible Emissions Observation Form – Stone Processing Plant
The RIngelmann Chart

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 Hawaii Department of Health, 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.

Sincerely,

THOMAS E. ARIZUMI, P.E., CHIEF
Environmental Management Division

GN:nn

Enclosures

c: Ed Yamamoto, EHS - Hilo
CAB Monitoring Section

PROPOSED

ATTACHMENT I: STANDARD CONDITIONS
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

This permit is granted in accordance with the Hawaii Administrative Rules (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 wilfully 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 of Health, 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 of Health.

   (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 <u>notify</u> 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 of Health and the Regional Administrator for the U.S. Environmental Protection Agency (EPA).

   (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 Covered Source Permit. There shall be no deviation unless additional or revised plans are submitted to and approved by the Department of Health, 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 <u>notify</u> the Department of Health 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 of Health 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 of Health copies of records required to be kept by the permittee. For information claimed to be confidential, the Director of Health may require the permittee to furnish such records not only to the Department of Health but also directly to the U.S. EPA Administrator along with a claim of confidentiality.

    (Auth.: HAR §11-60.1-14, §11-60.1-90)

16. The permittee shall notify the Department of Health 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 shut-down. 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 shut-down period;
    d. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shut-down 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. **Except for emergencies which result in noncompliance with any technology-based emission limitation in accordance with HAR, Section 11-60.1-16.5, in the event any emission unit, air pollution control equipment, or related equipment malfunctions or breaks down in such a manner as to cause the emission of air pollutants in violation of HAR, Chapter 11-60.1 or this permit**, the permittee shall immediately notify the Department of Health 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 each 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. A copy of applicable correspondence or records submitted to the Department of Health shall be provided to the U.S. EPA Administrator.

    (Auth.: HAR §11-60.1-90)

19. 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)

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

    a. Construction shall be commenced within eighteen (18) months after the permit takes effect, shall not be discontinued for a period of eighteen (18) months or more, and shall be 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)

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

    (Auth.: HAR §11-60.1-9, §11-60.1-90)

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

    (Auth.: HAR §11-60.1-90)

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

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

24. The permittee shall allow the Director of Health, 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 assure compliance with this permit or applicable requirements of HAR, Chapter 11-60.1.

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

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

    (Auth.: HAR §11-60.1-8; SIP §11-60-10)[2]

26. Each permit renewal application shall be submitted to the Department of Health no fewer than twelve (12) months and no more than eighteen (18) months prior to the permit expiration date. The Department of Health may allow a permit renewal application to be submitted no fewer than six (6) months prior to the permit expiration date, if the Department of Health determines that there is reasonable justification.

    (Auth.: HAR §11-60.1-101, 40 CFR §70.5 (a)(1)(iii))[1]

27. 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)

28. 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 of Health and the U.S. EPA Regional Administrator once per year, or more frequently as set by any applicable requirement.

    (Auth.: HAR §11-60.1-90)

29. **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:**

    Clean Air Branch
    Environmental Management Division
    State of Hawaii Department of Health
    P.O. Box 3378
    Honolulu, HI 96801-3378

    Upon request, all correspondence to the State of Hawaii Department of Health associated with this Covered Source Permit shall have duplicate copies forwarded to:

    Chief
    Permits Office, (Attention: Air-3)
    Air Division
    U.S. Environmental Protection Agency
    Region 9
    75 Hawthorne Street
    San Francisco, CA 94105

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

---

[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.

PROPOSED

ATTACHMENT II: SPECIAL CONDITIONS
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

In addition to the standard conditions of the Covered Source Permit, the following special conditions shall apply to the permitted facility:

Section A. Equipment Description

1. This Covered Source Permit encompasses the 750 tons per hour (tph) Stone Quarrying and Processing Plant consisting of the following equipment and associated appurtenances:

   a. Jaw Crusher, Primary, Cedarapids model 3648 (36" x 48"), serial no. 42694 design capacity at 12" closed stroke setting = 750 tph, manufactured date: unknown;

   b. Cone Crusher, with screen, Secondary, Symons model 4¼" SH (Short Head), serial no. C41237, H.O. no. H-1583, design capacity = unknown, screen size = 6' x 16', manufactured date = unknown;

   c. Triple Deck Screen, vibrating, Eljay model FSG 6203-32, serial no. 34C1194, screen size 6' x 20', design capacity = unknown, manufactured date = 1994;

   d. Impact Crusher, vertical shaft, Tertiary, Eljay model 2100 VBD, serial no. 28B0294, design capacity = 350 tph, manufactured date = unknown;

   e. Water spray nozzles (10 locations, may be decreased according to SPT results);

   f. Various conveyors; and

   g. Diesel engine generator, 1390 hp Caterpillar model 3512 AR No. 8N5806, serial no. 24Z00657.

   h. Eljay Vibrating Two-Deck Screen, 4 ft by 14 ft, serial no. 451, with three (3) conveyors.

   (Auth.: HAR §11-60.1-3)

2. An identification tag or name plate shall be displayed on the equipment and appurtenances listed above (except the spray nozzles), which identifies the 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)

Section B. Applicable Federal Regulations

1. The 750 TPH Stone Quarrying and Processing Plant is subject to the provisions of the following federal regulations:

a. 40 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 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. Hours of Operation

The total operating hours of the Stone Quarrying and Processing Plant, shall not exceed 2,080 hours in any rolling twelve (12) month period.

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

2. Fuel Limitation

The Diesel Engine Generator shall be fired only on fuel oil No. 2 with a maximum sulfur content not to exceed 0.5 percent by weight.

(Auth.: HAR §11-60.1-3, §11-60.1-38, §11-60.1-90)

3. Subpart OOO

a. The permittee shall not discharge or cause to be discharged into the atmosphere from any transfer point on the belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than ten (10) percent opacity.

b. The permittee shall not cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than fifteen (15) percent opacity.

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

PROPOSED

4. Visible Emissions

For any six (6) minute averaging period, the Diesel Engine Generator shall not exhibit visible emissions of twenty (20) percent or greater, except as follows: during start-up, shutdown, or equipment breakdown, the Diesel Engine Generator may exhibit visible emissions greater than twenty (20) but not exceeding sixty (60) percent opacity for a period aggregating not more than six (6) minutes in any sixty (60) minutes.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90; 40 CFR §60.92; SIP §11-60-24)[1,2]

5. Air Pollution Control

a. Water sprays shall be installed at the following locations to minimize fugitive dust:

i. At the crushers and screens;

ii. At transfer points including conveyors; and

iii. At material drop off points and stockpiles.

The Department of Health at any time may require additional water sprays or manual water spraying at pertinent locations if an inspection indicates that more fugitive dust control is needed.

b. A water pressure gauge shall be installed, operated, and maintained to measure the pressure of the water spray system in pounds per square inch (psi).

c. The water spray system shall be maintained in good operating condition and be utilized as necessary, during crushing and screening operations. If observation, or the routine weekly inspection, as required by Special Condition No. D.4., indicates plugged nozzles, leak in the piping system, or other problem which affects the efficiency of the water spray system, the permittee shall investigate and correct the problem before resuming operation.

d. A water truck shall be utilized on site as necessary at the stockpiles, on the roadways, and throughout the workyard to minimize fugitive dust.

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

6. Process/Flow Diagram

The permittee shall operate the Stone Quarrying and Processing Plant as a single plant with all incoming materials being processed through the primary jaw crusher. The permittee shall not operate the Stone Quarrying and Processing Plant in a configuration

that would

result in an increase in the number of emission points, such as the addition of more transfer or stacking conveyors (without notification and approval of the Department).

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

7. Maintenance

The Stone Quarrying and Processing Plant and the Diesel Engine Generator shall be maintained in good operating condition with scheduled inspection and maintenance as recommended by the manufacturer and/or at least once per month.

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

8. Fugitive Emissions

a. The permittee shall take measures to control fugitive dust, for example, wet suppression, enclosures, dust screens, etc., from all crushers, bin feeders, screens, material transfer points, open conveyors, stockpiles, and throughout the workyard. The Department of Health may at any time require the permittee to further abate fugitive dust emissions if an inspection indicates poor or insufficient control.

b. The permittee shall not cause nor permit fugitive dust to become airborne without taking reasonable precautions and shall not cause nor permit the discharge of visible emissions of fugitive dust beyond the lot line of the property boundary on which the emissions originate.

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

9. Alternate Operating Scenario

a. The permittee may replace any diesel engine and any diesel engine generator with a temporary replacement unit if any repair reasonably warrants the removal of the diesel engine or the diesel engine generator from its site, that is, equipment failure, engine overhaul, or any major equipment problems requiring maintenance for efficient operation, and the following provisions are adhered to:

i. Written notification and approval in accordance with Special Condition No. E.8.a.;
ii. The temporary replacement unit is similar in size with equal or lesser emissions;
iii. The temporary replacement unit complies with all applicable conditions including all air pollution control equipment requirements, operating restrictions, and emission limits;

iv. The original diesel engine or diesel engine generator shall be repaired and returned to service at the same location in a timely manner; and
v. Prior to the removal and return of the diesel engine, or diesel engine generator, the permittee shall submit to the Department of Health information as required by this Atachment, Special Condition No. E.8.b.

b. The Department of Health may require an ambient air quality impact assessment of the temporary unit verifying that Federal/State Ambient Air Quality Standards are met, and/or provide a conditional approval to impose additional monitoring, testing, recordkeeping, and reporting requirements to ensure the temporary unit is in compliance with the applicable requirements of the permitted unit being temporarily replaced.

c. Records shall be maintained in accordance with Special Condition No. D.6.

d. The terms and conditions under each operating scenario shall meet all applicable requirements, including special conditions of this permit.

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

Section D. **Monitoring and Recordkeeping**

1. Recordkeeping

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

b. The permittee shall, at his own expense, install, operate, and maintain a non-resetting hour meter on the Diesel Engine Generator for the continuous and permanent recording of the total hours the Diesel Engine Generator has operated. The operating hours of the Diesel Engine Generator shall represent the total hours operated by the Stone Quarrying and Processing Plant, or individual equipment(s), for the purpose of the hourly limitation specified in this Attachment, Special Condition No. C.1. The following records shall be kept for the Diesel Engine Generator at each location:

i. Identification of the Diesel Engine Generator that is, identify the equipment, manufacturer, model no., and serial no.;
ii. The date and time of the meter readings;
iii. The beginning meter readings for each month;
iv. The total hours of operation for each month; and

v. The total hours of operation on a 12-month rolling basis.

c. The permittee shall record the start and ending dates the Stone Quarrying and Processing Plant is operated, and the amounts of material processed at the permitted location on a monthly and yearly basis for the purpose of annual emissions reporting.

d. The permittee shall maintain records on inspections, maintenance and any repair work conducted on the Stone Quarrying and Processing Plant and the Diesel Engine Generator. At a minimum, these records shall include:

i. The date of the inspection, maintenance or repair work;
ii. Name and title of the personnel performing the inspection, maintenance, and/or repair work;
iii. A description of the finding(s), maintenance, or repair work performed; and
iv. Part(s) inspected, repaired, or replaced. When replaced, record manufacturer's name, model and serial number.

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

2. Fuel Consumption and Certification

a. Fuel consumption (fuel oil no. 2) for the Diesel Engine Generator shall be recorded in a monthly report which records fuel received. Fuel received shall be based on delivery receipts, identifying the fuel supplier, delivery dates, and the type and amount of fuel received (gallons).

b. The permittee shall obtain from the fuel supplier the certificate of analysis of the fuel delivered. The fuel analysis shall identify the percent sulfur content by weight. Fuel delivery receipts, and certificates of analysis shall be maintained at the work site and made available to the Department of Health upon request. Records on the total amount (gallons) of fuel fired in the diesel engine shall be maintained on an annual basis, to calculate annual emissions/fees.

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

3. Visible Emissions (V.E.)

a. Monthly and annual V.E. records with observation monitoring results of the Stone Crushing and Processing Plant and diesel engine stack exhaust shall be completed and maintained in accordance with the **"Visible Emissions Observation Requirements."**

b. Except in those months where V.E. observations are conducted pursuant to Special Condition No. D.3.d. of this attachment, the permittee shall conduct **monthly** (calendar month) V.E. observations for the diesel engine in accordance with 40 CFR Part 60,

Appendix A, Method 9 or by use of a Ringelmann Chart as provided. For each monthly observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the Visible Emissions Observation Requirements.

c. Except in those months where a performance test is conducted pursuant to Special Condition No. D.5. below, the permittee shall conduct **monthly** (calendar month) V.E. observations for the stone crushing and processing plant. Observations shall be made at emission points subject to an opacity limit, and shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9, or by use of a Ringelmann Chart as provided. For each monthly observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals. For the visible emission observations of fugitive emissions from the stone crushing and processing plant, the observer shall comply with the following additional requirements:

   i. The minimum distance between the observer and the emission source shall be 4.57 meters (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 (ton/hr) of the plant at the time the observations were made.

   The Department of Health may allow observation of a portion of the total emission points at the stone crushing and processing plant, if it can be demonstrated that operations have been in compliance with the permit. At a minimum, at least one crusher, one screen, and one transfer point from the crushing plant shall be observed each month, or those points as specified by the Department of Health. Allowance to observe a portion of the total required emission points shall be obtained in writing from the Department of Health.

   Records shall be completed and maintained in accordance with the Visible Emissions Observation Requirements.

d. The pemittee shall conduct **annually** (calendar year), V.E. observations for the Diesel Engine Generator by a certified reader in accordance with 40 CFR Part 60, Appendix A, Method 9. For the annual observation, the permittee shall record two (2) consecutive observations, each six (6) minutes in duration with readings taken at fifteen (15) second intervals. Records shall be completed and maintained in accordance with the Visible Emissions Observation Requirements.

e. Upon written request and justification by the permittee, the Department of Health may

waive the requirement for the annual V.E. observation of the Diesel Engine Generator. The waiver request is to be submitted prior to the required annual V.E. observation and must include documentation justifying such action. Documentation should include, but is not limited to, the results of the prior V.E. observations indicating compliance by a wide margin, documentation of continuing compliance, and further that operations of the source have not changed since the previous annual V.E. observation.

(Auth.: HAR §11-60.1-3, §11-60.1-32, §11-60.1-90)

4. Air Pollution Control

To ensure proper operations, the piping system, spray nozzles, and pressure gauge of the water spray system shall be inspected routinely at least once per week.

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

5. Source Performance Test (SPT)

Annual source performance tests shall be conducted pursuant to this Attachment, Section F. Test summaries and results shall be maintained in accordance with the requirements of this section.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

6. Alternate Operating Scenario

The permittee shall contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility, the scenario under which it is operating.

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

Section E. Notification and Reporting Requirements

1. Notification and reporting pertaining to the following events shall be done in accordance with Attachment I, Standard Conditions 16, 17 and 25, respectively:

   a. Intent to shut-down air pollution control equipment for necessary scheduled maintenance.

   b. Emissions of air pollutants in violation of HAR, Chapter 11-60.1 or this permit (excluding technology-based emission exceedances due to emergencies); and

   c. 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 the 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 the 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. Source Performance Test (SPT)

a. At least **thirty (30) days** prior to conducting a source performance test, the permittee shall submit to the Department of Health and U,S, EPA Region 9, a written test plan, in accordance with this Attachment, Section F, Testing Requirements.

(Auth.: HAR §11-60.1-3, §11-60.1-90; CFR §60.8)[1]

b. Written reports of the results of all source performance tests conducted to demonstrate compliance shall be submitted to the Department of Health and EPA Region 9, **within sixty (60) days** after the completion of the performance test.

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

4. Semiannual Monitoring Reports

The permittee shall submit **semiannually** the following written reports to the Department of Health. The reports shall be submitted within **sixty (60) days** after the end of each ***semiannual calendar*** *period (January 1 - June 30, and July 1 - November 31*), be signed and dated by a responsible official, and shall include the following:

a. The total operating hours of the Diesel Engine Generator on a monthly and twelve (12) month rolling basis;
b. Identification of the type(s) of fuel fired in the Diesel Engine Generator during the respective reporting period. Include the maximum sulfur content (percent by weight) of the fuel; and
c. Identification of any opacity exceedances as determined by the required V.E. monitoring. Each exceedance reported shall include the date, Diesel Engine Generator identification or specific location of the fugitive emission within the stone quarrying and processing plant, six (6) minute average opacity reading, possible reason for exceedance, duration of exceedance, and corrective actions taken. If there

were no exceedances during the semiannual reporting period, the permittee shall submit in writing a statement indicating that for each equipment (i.e., the Diesel Engine Generator and/or the Stone Quarrying and Processing Plant) there were no exceedances for that semiannual period.

The enclosed Monitoring Report Forms shall be used:

i. **Operating Hours-Diesel Engine Generator**;
ii. **Fuel Certification**; and
iii. **Visible Emission**
(1) **Stone Quarrying and Processing Plant**
(2) **Diesel Engine Generator.**

(Auth.: HAR §11-60.1-3, §11-60.1-90)

5. Annual Emissions

As required by Attachment IV 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 enclosed Annual Emissions Report Forms shall be used:

a. **Stone Quarrying and Processing Plant** ; and
b. **Diesel Engine Generator**.

Upon the written request of the permittee, the deadline for reporting of annual emissions may be extended, if the Department of Health 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)

6. Compliance Certification

During the permit term, the permittee shall submit at least **annually** to the Department of Health and U.S. EPA Region 9, Attachment V: Compliance Certification, a compliance certification 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; and

f. Any additional information as required by the Department of Health including information to determine compliance.

The compliance certification shall be submitted within **ninety (90) days** after the end of each calendar year, and shall be signed and dated by an authorized representative. Upon

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

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

8. Alternate Operating Scenario

a. The permitttee shall submit a written request and receive prior written approval from the Department of Health before the exchange. The written request shall identify at a minimum, the reason(s) for replacement, the anticipated date of replacement, replacement diesel engine(s)' or diesel engine generator's specifications, including manufacturer, model number and serial no., estimated emissions (tons per year, pound per hour, and grams per second) for the temporary diesel engine(s) or diesel engine generator, replacement, estimated time period/dates for the temporary replacement, and an ambient air quality impact assessment, if requested, for the temporary diesel engine(s) or the diesel engine generator.

b. Prior to the removal of the replacement diesel engine(s) or the diesel engine generator, and returning the original diesel engine(s) or diesel engine generator, to service, the permittee shall submit to the Department of Health written documentation on the removal of the temporary diesel engine or diesel engine generator, and the return to operation dates of the original diesel engine(s) or diesel engine generator.

(Auth.: HAR §11-60.1-3, §11-60.1-90)

Section F. Testing Requirements

1. On an annual basis or at such times as may be specified by the Department of Health, the permittee shall, at his own expense, conduct or cause to be conducted a performance test on the Stone Quarrying and Processing Plant. Performance tests shall be conducted to determine the opacity of fugitive particulate matter emissions. Tests shall be conducted at

each point subject to an opacity limit, more specifically at:

a. The crushers;
b. Screens; and
c. All transfer points.

The Department of Health at any time reserves the right to require source testing of any alternate primary and secondary crushers. The Department may require additional testing at other points in the facility 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, CFR §60.8, §60.672, §60.675)

2. Performance tests for the determination of opacity shall be conducted and results reported in accordance with the test methods set forth in 40 CFR Part 60 §60.8 and Appendix A. The following test method(s) or U.S. EPA-approved equivalent method(s), or alternate method(s) with prior written approval from the Department of Health shall be used:

   a. Performance tests to determine opacity shall be conducted using 40 CFR Part 60, Appendix A, Method 9; and
   b. Procedures for compliance with standards and maintenance requirements from 40 CFR Part 60, §60.11 with the following additions:

      i. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet);
      ii. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, §11-60.1-161; 40 CFR §60.675)

3. The permittee shall provide sampling and testing equipment. The tests shall be conducted at the maximum expected operating capacity of the Stone Quarrying and Processing Plant. The Department of Health may monitor the tests.

   (Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, SIP §11-60.1-15)[2]

4. **At least 30 calendar days prior** to conducting the annual source performance test, the permittee shall submit a written performance test plan (protocol) to the Department of Health and EPA Region 9, that includes the test date(s), the test duration, test locations, and describes the test, test methods, source operation and other parameters that may affect test results. Such a plan shall conform to U.S. EPA guidelines including quality assurance procedures.

Subject to DOH approval, the test may be run at less than maximum capacity. State the maximum expected capacity of the test run in the test plan/protocol. If the test is not scheduled to run at maximum capacity, justify the lesser production rate by submitting the most recent twelve (12) months production/operating rates.

(Auth.: HAR §11-60.1-3, §11-60.1-5, §11-60.1-11, §11-60.1-90, 40 CFR §60.8, SIP §11-60-15)[1,2]

5. Any deviations from these test conditions, methods, or procedures may be cause for rejection of the test results unless such deviations are approved by the Department of Health and EPA Region 9, before the tests.

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

6. **Within sixty (60) days after** completion of the performance test, the permittee shall submit to the Department of Health the test report which shall include:

   a. The operating conditions of the equipment at the time of the test [e.g., crusher production rate (ton/hr)];
   b. The summarized test results;
   c. Comparative results with the permit emission limits; and
   d. Other pertinent field and laboratory data (e.g., location of where the visible emissions were read).

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

7. Upon written request and justification by the permittee, the Department of Health may waive the requirement for, or a portion of, a specific annual source performance test. The waiver request is to be submitted prior to the required source test and must include documentation justifying such action. Documentation should include, but is not limited to:

   a. The results of the prior tests indicating compliance by a wide margin;
   b. Documentation of continuing compliance; and further that
   c. Operations of the source have not changed since the previous source test.

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

Section G. **Agency Notification**

Any document (including reports) required to be submitted by this permit shall be done in accordance with Attachment 1, Standard Condition 29.

(Auth.: HAR §11-60.1-4, §11-60.1-90)

[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 III: ANNUAL FEE REQUIREMENTS
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

The following requirements for the submittal of annual fees are established pursuant to Hawaii Administrative Rules (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 **sixty (60) 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 Hawaii Administrative Rules, 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 of Health.

4. The annual fees and the emission data shall be mailed to:

Clean Air Branch
Environmental Management Division
Hawaii Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

ATTACHMENT IV: ANNUAL EMISSIONS REPORTING REQUIREMENTS
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration 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.

1. Complete the attached form(s):

   Annual Emissions Report Form: Stone Quarrying and Processing Plant
   Monitoring/Annual Emissions Report Form: Diesel Engine Generator

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

   Clean Air Branch
   Environmental Management Division
   Hawaii Department of Health
   P. O. Box 3378
   Honolulu, HI 96801-3378

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 of Health upon request.

4. Any information submitted to the Department of Health 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
COVERED SOURCE PERMIT NO. 0454-01-C
PAGE 1 OF ___

Issuance Date: **Expiration 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 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 Hawaii Administrative Rules, Title 11, Chapter 60.1, Air Pollution Control, and any permit issued thereof.

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0454-01-C
(CONTINUED, PAGE 2 OF ___)

Issuance Date: **Expiration 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(s)	Compliance
All standard conditions	All Equipment(s) listed in the permit	Continuous Intermittent

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

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

COMPLIANCE CERTIFICATION FORM
COVERED SOURCE PERMIT NO. 0454-01-C
(CONTINUED, PAGE ____ OF ___)

Issuance Date: **Expiration 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(s)	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
		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
COVERED SOURCE PERMIT NO. 0454-01-C
(CONTINUED, PAGE ___ OF ___)

Issuance Date: **Expiration Date:**

D. Deviations

Permit Term/ Condition	Equipment(s) / 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)

PROPOSED

MONITORING REPORT FORM
OPERATING HOURS - DIESEL ENGINE GENERATOR
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration 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 Reporting Period: _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

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): _____

MONTH	MONTHLY TOTAL OPERATING HOURS	ROLLING 12-MONTH TOTAL HOURS	NOTES AND OTHER INFORMATION
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			

PROPOSED

MONITORING REPORT FORM
DIESEL ENGINE GENERATOR FUEL CERTIFICATION
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration 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: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Equipment Capacity/Rating (specify units): _____
(Units such as Horsepower, kilowatt, tons/hour, etc.)

Responsible Official (PRINT): _____

TITLE: _____

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 (Signature): _____

Fuel Certification:

Report the maximum weight percent sulfur in the fuel oil No. 2 during the reporting period for which this certification is required. _____

PROPOSED

MONITORING REPORT FORM
OPACITY EXCEEDANCES
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration 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/Facility Name:_____

Facility Name:_____

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

Responsible Official (Print):_____

Title:_____

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
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

The ***Visible Emissions (V.E.) Form*** shall be completed **monthly** (*each calendar month*) for each equipment subject to opacity limits in accordance with 40 CFR Part 60, Appendix A, Method 9 or use of a Ringelmann Chart as provided. At least **annually** (*calendar year*), V.E. observation shall be conducted for each equipment subject to opacity limits by a certified reader in accordance with Method 9. The V.E. Form shall be completed as follows:

1. Visible emissions observations shall take place during the day only and shall be compared to the Ringelmann Chart provided. 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 V.E. Form using the symbols as shown.
3. For V.E. observations of stacks, stand at least three (3) stack heights but not more than a quarter mile from the stack.
4. For V.E. observations of fugitive emissions from crushing and screening plants, stand at least 4.57 meters (15 feet) from the visible emissions source, but not more than a quarter mile from the visible emission 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 V.E. Forms for recordkeeping. These records shall be in a permanent form suitable for inspection, retained for a minimum of five 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 V.E. monitoring requirements for the month the performance test is performed.

PROPOSED

VISIBLE EMISSIONS FORM
STONE QUARRYING AND PROCESSING PLANT
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

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

Company Name:_____

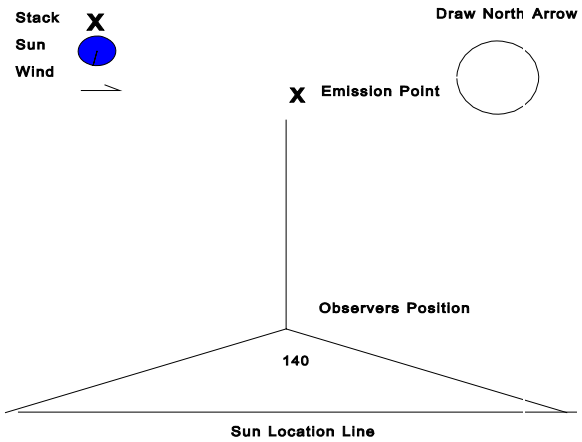
For stacks, describe equipment and fuel:_____

For fugitive emissions from crushers and screens, describe:

Fugitive emission point:_____

Plant Production (tons/hr):_____

(During observation)



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:_____

Method of observation (Ringelmann Chart or Method 9):_____

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

Observation Date and Start Time:_____

Method of observation (Ringelmann Chart or Method 9):_____

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

PROPOSED

VISIBLE EMISSIONS FORM
DIESEL ENGINE GENERATOR
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

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

Company Name:_____

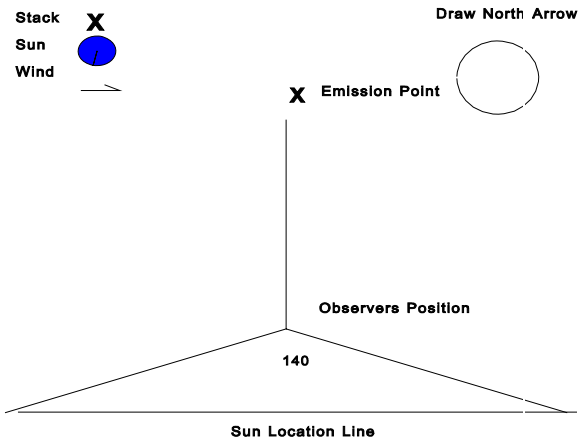
For stacks, describe equipment and fuel:_____

For fugitive emissions from crushers and screens, describe:

Fugitive emission point:_____

Plant Production (tons/hr):_____

(During observation)



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:_____

Method of observation (Ringelmann Chart or Method 9):_____

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

Observation Date and Start Time:_____

Method of observation (Ringelmann Chart or Method 9):_____

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

PROPOSED

ANNUAL EMISSIONS REPORT FORM
STONE QUARRYING AND PROCESSING PLANT
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration Date:**

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

(Make Copies for Future Use)

For Reporting Period: _____ Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____
(Provide Ton/Hr. Rated-Capacity for Primary Crusher OR Crushing Rate of the Plant)

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.

Serial/ID No.: _____

Responsible Official (PRINT): _____

TITLE: _____

Responsible Official (Signature):Control: _____

	Type of Operation	Tons of Material (tons/year)	Air Pollution Control Measures in Use	Efficiency (% Reduction)
1.	Raw material entering primary crusher.			
2.	Process material entering secondary crusher.			
3.	Process material entering tertiary crusher.			
4.	Process material entering fine mill.			

Additional Information:

1. Number of Stockpiles _____ Control Measures _____
   Percent Reduction _____
2. Tons/hour of material entering primary crusher _____ tons/hr.

NOTE: Control measures include water sprays, partial enclosures, screens, housing and duct work to baghouses.

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

1. *Baghouses: 99%*
2. *Watersprays, Damp Material, or Shroud: 70%*
3. *Wet Slurry: 100%*

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.

PROPOSED

ANNUAL EMISSIONS REPORT FORM
DIESEL ENGINE GENERATOR
COVERED SOURCE PERMIT NO. 0454-01-C

Issuance Date: **Expiration 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)

Fill out a separate form for each Diesel Engine Generator.

For Reporting Period: _____Date: _____

Facility Name: _____

Equipment Location: _____

Equipment Description: _____

Serial/ID No.: _____

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): _____

_____ MMBTU/Hr. (Maximum Design Heat Input; MM = 1 x 10^6)
_____ kilowatt rating
_____ horse-power rating

Type of Fuel Fired	Fuel Usage Gallons per year	% Sulfur Content by weight	Identify % Nitrogen, % Ash, & % Lead, if applicable

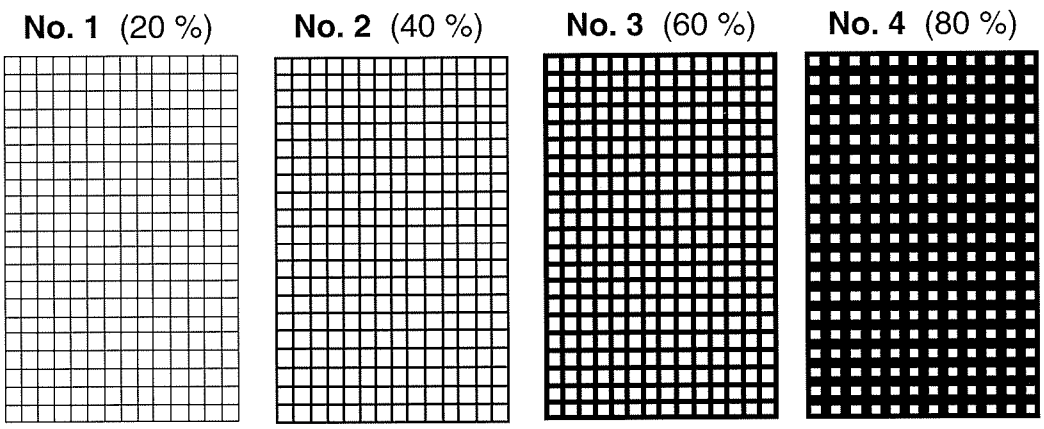
Types of Fuel:
- Residual Oil: Specify Grade, No. 6, 5, or 4;
- Distillate Oil (No. 2);
- Liquefied Petroleum Gas, Butane or Propane;
- If Other, specify.

Type of Air Pollution Control	**In Use?**	**Pollutant(s) Controlled**	**Control Efficenty, % Reduction**
	☐ Yes ☐ No		
	☐ Yes ☐ No		
	☐ Yes ☐ No		

The Ringelmann Chart

In the late 1800's in Paris, France, Professor Maximilian Ringelmann developed the **Ringelmann Chart** to measure the combustion efficiency of coal-fired boilers. The shade of the smoke plume shows how well a boiler is operating - the poorer its combustion efficiency, the more unburned carbon particles in the smoke and the darker the plume.

Professor Ringelmann's chart established four measured shades of gray between white, valued at zero, and black, at five. These specific shades of gray, Ringelmann No. 1 to Ringelmann No. 4, can be accurately reproduced by placing a grid of black lines of a given width and spacing on a white background. Viewed from a distance, the grid lines and background merge into the shades of gray, to be compared to the shade of the smoke plume.



Ringelmann Chart (not to scale)

Regulating Visible Emissions

The Ringelmann Chart became one of the first tools used to measure visible emissions. Introduced into the United States in 1897, it was soon accepted as the standard measure of smoke density and was used by engineers for power plant testing and smokeless combustion studies. In 1910, the Chart was officially adopted as part of the Smoke Ordinance for Boston, Mass.

Many city, state, and federal regulations now set smoke density limits based on the Ringelmann Smoke Chart. Although not originally designed as a regulatory tool to control air pollution, it gives good practical results when used by well-trained observers.