Covered Source Permit No. 0252-01-C

Application No.: Renewal and significant modification application no. 0252-06

Organization Name: Hawaiian Cement

Facility Name: Hawaiian Cement Puunene

Equipment Location: Camp 6, Puunene, Maui
UTM Coordinates: NAD-83
Zone 4
765,552 m E; 2,304,004 m N

Responsible Official: Mr. John DeLong
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SIC Code: 1429 Crushed and Broken Stone, Not Elsewhere Classified

Proposed Project: Hawaiian Cement's facility consists of a stone processing plant, associated process vehicles, and product storage stockpiles. Hawaiian Cement submitted an application for renewal and significant modification of the permit. The significant modification consists of adding a 950 HP diesel engine generator and replacing a portion of the stone processing plant. The following equipment is proposed to be added to the facility:

- 950 HP CAT D27 diesel engine generator, SN MJE00535
- 720 tph Pioneer 5024 grizzly feeder, SN 408532
- 653 tph Pioneer 4450 jaw crusher, SN 408531
- 840 tph JCI620332LP, 6 x 20 3-deck screen, SN 00LP12132
- 400 tph Syntron F-480 feeder, SN T102615
- 525 tph Deister 5x14 2-deck screen, SN 2001169
- 150 tph Fisher Industries Stationary Air Classifier, SN AS-67-607347
- New conveyors to accommodate the revised process
- New belt feeder between the two Canica VSI tertiary crushers and the two Simplicity 8 x 20 tertiary screens

According to Dane Wurlitzer the manufactured date of the proposed stone processing equipment is 2008. The order date for the diesel engine generator is 2/14/2009.

The Deister 5 x 14 2-deck screen is replacing the existing Hewitt Robbins 5 x 12, 2 deck screen.

Hawaiian Cement will retain the Pioneer Jaw Crusher (CR2), Metso Mineral Scalping Screen (S2), and Cedarapids Apron Feeder (GF1) listed in the September 23, 2003 permit as backup equipment. The following table provides a description of the equipment that will be retained as backup and the equipment it will replace when needed.

Backup Equipment	New Equipment
GF1 700 TPH Cedarapids Apron Feeder with Hopper model VGF4220-15 s/n 50058	GF1 720 TPH Pioneer grizzly feeder model 50x24 SN 408532
CR2 800 TPH Pioneer Jaw Crusher model 3042 s/n UH-3769	CR2 653 TPH Pioneer Jaw Crusher model 4450 SN 408531
S2 600 TPH Metso Minerals 4' x 8' double deck Primary Scalping Screen model HRVX-9 s/n C001061401	S2 840 TPH 6 x 20 3-deck Screen model JCI620332LP SN 00LP12132

Based on the last review performed for the facility (permit issued on September 23, 2003), it was determined that the only affected facilities (as defined in 40 CFR Part 60, Subpart OOO) not subject to the requirements of Subpart OOO include the backup 800 TPH Pioneer Jaw Crusher (CR2) which was manufactured in 1981.

Plant Process:

The plant processes quarried basalt rock using crushing, screening, and conveying units. Quarry trucks and wheel loaders are used to transport quarried material to the plant. Front end loaders are used to facilitate handling and management of the process and storage product piles.

Figure S-1-1, the process flow diagram of application 0252-06 rev 9/24/10 details the layout of the equipment with the backup units in operation along with the remaining process line. Figure S-1-2, the new equipment layout of application 0252-06 rev 6/18/10 details the layout of the newly proposed equipment.

Water sprays are applied at the exit of the primary, secondary, and tertiary crushers, and at points where visible emissions are consistently over 5. Both tertiary crushers also utilize enclosures to control fugitive dust from crushing and from conveyor transfer to the crushing units. A water truck is operated on site 8 hours per day, Monday through Friday.

No other configurations are proposed by the applicant.

The existing permit contains an operating limit of 692,000 tons per rolling twelve-month (12) period. Hawaiian Cement is proposing to increase the limit to 1,000,000 tons per rolling twelve (12) month period.

Hawaiian Cement is proposing an operating limit of 4,380 hours per rolling twelve (12) month period for the diesel engine generator.

Equipment:

Unit No.	Equipment Description	Capacity	Model	Diesel Engine Serial No.	Manufacture Date
U-1	635 ekW Caterpillar Diesel Engine Generator	950 HP	CAT C27 ATAAC Diesel Engine CAT SR4B Generator	MJE00535	June 21, 2007

Unit No.	Equipment Description	Size	Model	Serial No.	Manufacture Date	Max. Design Capacity
653 TPH Stationary Plant						
GF1	Pioneer Grizzly Feeder	50x24	50x24	408532	2008	720 TPH
CR2	Pioneer (Primary) Jaw Crusher	44" x 50"	4450	408531	2008	653 TPH
S2	JCI 3-deck screen	6' x 20'	JCI620332LP	00LP12132	2008	840 TPH
S3	Deister 2-deck screen	5x14	5x14	2001169	2008(?)	525 TPH
CR6	Cedarapids (Secondary) Rollercone Crusher	NV	MVP450	NV	2002	645 TPH[2]
CR4	Canica (Tertiary No. 1) Impact Crusher	NV	100 VSI	125120-87	1987	400 TPH[2]
CR5	Canica (Tertiary No. 2) Impact Crusher	NV	125 VSI	125140-92	1991	600 TPH[2]
S4	Simplicity (Tertiary) Screen (largest size 3/4" opening)	8'x20' (3-deck)	NV	3820-M160A-3887	1992	NV
S5	Simplicity (Tertiary) Screen (largest size 3/4" opening)	8'x20' (3-deck)	NV	3820-M160A-3886	1992	NV
	Fisher Industries Stationary Air Classifier	NV	NV	AS-67-607347		150 TPH
	Various Conveyors	NV	NV	NV	various	NV
Fdr3	Syntron Feeder	5x14	F-480	T102615	(?)	525 TPH
GF2	Jeffery Feeder #2 (Canica 95)	NV	250	884517	1992	NV
GF3	Jeffery Feeder #1 (Canica 125)	NV	250	884516	1992	NV
Fdr6	Surge Rock Feeder	NV	NV	NV	NV	NV
	Control devices					
	Water sprays	NV	NV	NV	NV	NV

Air Pollution Control:

Water sprays and enclosures are the methods employed to control particulate matter emissions from plant process units, stockpiles, and vehicle traffic fugitive emission sources.

The plant employs water nozzles and spray bars to control particulate matter emissions. Water is applied directly to the process source (e.g. crushers), or to the processed product (material on conveyors and process stockpiles) to control particulate emissions except where doing so would reduce the efficiency of plant operation. In addition, the facility also employs enclosures to control particulate matter emissions from the tertiary crushers.

An onsite water truck will be used to control fugitive particulate emissions from process vehicle activities and product stockpiles during working hours.

Applicable Requirements:

Applicable Hawaii Administrative Rules (HAR):

Chapter 11-59, Ambient Air Quality Standards
Chapter 11-60.1
- Subchapter 1, General Requirements
- Subchapter 2, General Prohibitions
  - 11-60.1-31 Applicability
  - 11-60.1-32 Visible Emissions
  - 11-60.1-33 Fugitive Emissions
  - 11-60.1-37 Process Industries
  - 11-60.1-38 Sulfur Oxides from Fuel Combustion
- Subchapter 5, Covered Sources
- Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
  - 11-60.1-111 Definitions
  - 11-60.1-112 General Fee Provisions for Covered Sources
  - 11-60.1-113 Application Fees for Covered Sources
  - 11-60.1-114 Annual Fees for Covered Sources
- Subchapter 8, Standards of Performance for Stationary Sources
  - 11-60.1-161 New Source Performance Standards
    - (9) Subpart I, Standards of Performance for Asphalt Concrete Plants
- Subchapter 9, Hazardous Air Pollutant Sources
- Subchapter 10, Field Citations

NSPS Applicability (portable stone processing plant): The stone processing plant is subject to 40 CFR Part 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. The stone processing equipment meets the applicability trigger of being a portable nonmetallic mineral processing plant with a capacity greater than 150 tons per hour. The crushers (excluding the backup 800 TPH Pioneer Jaw Crusher), screens, and conveyor transfer points are subject to the regulation.

NSPS/NESHAP Applicability (diesel engine generator): The diesel engine generator is subject to 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Subpart IIII is triggered when construction (order date) for the diesel engine generator is commenced after July 11, 2005 and the diesel engine generator is manufactured after April 1, 2006, the diesel engine generator was ordered 2/14/09. Subpart ZZZZ is triggered if construction is commenced on or after June 12, 2006. Part 63, Subpart ZZZZ only requires that the diesel engine generator meets the requirements of Part 60, Subpart IIII.

BACT Applicability: The applicant employs the use of water sprays at certain locations in the stone processing and screening operation and the use of a water truck on the facility roadway and stockpiles. Potential emissions from the diesel engine generator are below significant levels.

Synthetic minor status: A synthetic minor source is a facility that is potentially major as defined in HAR § 11-60.1-1, but is made non-major through federally enforceable permit conditions. This facility is a synthetic minor based on potential emissions greater than 100 tons per year of particulate matter when the equipment is operated for 8,760 hours per year. See the **Project Emissions** section for details.

Non-Applicable Requirements:

PSD Applicability: The facility is not subject to review of PSD applicability because the potential to emit from the facility is less than 100 tons per year of each criteria pollutant.

40 CFR Part 61: The diesel engine generator and stone processing equipment are not subject to any regulation of 40 CFR Part 61 – National Emission Standards for Hazardous Air Pollutants.

Compliance Assurance Monitoring Applicability: 40 CFR Part 64 Compliance Assurance Monitoring (CAM) rule. The facility is not subject to the CAM rule since it is not a major source of emissions.

Part 51, Subpart A, Emission Inventory Reporting Requirements – Consolidated Emissions Reporting Rule: CERR determines the applicability of compliance emissions reporting on the emissions of each air pollutant from the facility.

Minimum Point Source Reporting Thresholds by Pollutant			
Pollutant	Annual Cycle type A sources	Three-year cycle type B sources	Facility Emissions [a]
	tons/year	tons/year	tons/year
SO_x	≥ 2500	≥ 100	0.71
VOC	≥ 250	≥ 100	0.14
NO_x	≥ 2500	≥ 100	23.21
CO	≥ 2500	≥1000	1.38
Pb		≥ 5	not available
PM_{10}	≥ 250	≥ 100	12.61
$PM_{2.5}$	≥ 250	≥ 100	2.56
Ammonia	≥ 250	≥ 100	not anticipated

[a] Detailed emissions are in the **Project Emissions** section.

The facility is not subject to CERR requirements.

Alternate Operating Scenarios: The applicant is not proposing any alternate operating scenarios.

Insignificant Activities/Exempt Equipment:

Compressors (Basis: § 11-60.1-82 (f)(8))

Description	Model	Rating	Fuel Type
Ingersoll Rand	Model 2475	13 HP	gas
Ingersoll Rand	Model 2475	13 HP	gas
Ingersoll Rand	Model 2475	13 HP	gas
Ingersoll Rand	Model 2475	13 HP	gas
Ingersoll Rand	Model 2475	13 HP	gas
Ingersoll Rand	Model 2475	13 HP	gas

Welders (Basis: § 11-60.1-82(g)(1))

Description	Model	Rating	Fuel Type
Lincoln	Ranger 305 D Welder/Gen	18.8 HP	diesel
Miller	Bobcat 250 Welder/Gen	23 HP	gas
Miller	Trailblazer 302 Welder/Gen	23 HP	gas

Generators (Basis: § 11-60.1-82(f)(2) and (g)(8))

Description	Model	Rating	Fuel Type
Portable Caterpillar	Olympian XQ60	55 kW	diesel
Portable Generator	Wacker GS	9.7 kW	gas

Pressure Washer (Basis: § 11-60.1-82(g)(8))

Description	Model	Rating	Fuel Type
Dewalt	DPD 3800	11 HP	gas

Fuel Storage (Basis: § 11-60.1-82(f)(1))

Description	Fuel Type
Low Sulfur Diesel	3000 gal
Ultra Low Sulfur Diesel	3000 gal
Gasoline	1000 gal
Low Sulfur Diesel	350 gal
Low Sulfur Diesel	350 gal
Low Sulfur Diesel	600 gal
Low Sulfur Diesel	1000 gal
Low Sulfur Diesel	800 gal
Low Sulfur Diesel	400 gal

Emissions from the insignificant activities plus the permitted equipment are below 100 tons per year for all criteria pollutants, below 10 tons of a single hazardous air pollutant (HAP), and 25 tons of all HAPs combined.

Project Emissions:

950 HP Diesel Engine Generator
Criteria Pollutant Emissions

pollutant	fuel consumption gal/hr	hp rating	emission rate	emission rate	emission rate	emission rate	emission rate	emission rate 4,380 hrs/yr	emission rate 8,760 hrs/yr
			grams/hp-hour	lbs/hp-hour	grams/hour	grams/sec	lbs/hr	tons/yr	tons/yr
NO_x	46	950	5.060	1.12E-02	4807.00	1.34	10.60	**23.21**	46.42
CO	46	950	0.300	6.61E-04	285.00	7.92E-02	0.63	**1.38**	2.75
PM	46	950	0.025	5.51E-05	23.75	6.60E-03	0.05	**0.11**	0.23
PM10	46	950	0.024	5.29E-05	22.80	6.33E-03	0.0503	**0.11**	0.22
PM2.5	46	950	0.023	4.96E-05	21.38	5.94E-03	0.0471	**0.10**	0.21
SO_2	46	950	---	---	---	1.23E-03	0.01	**0.02**	0.04
HC	46	950	0.030	6.61E-05	28.50	7.92E-03	0.06	**0.14**	0.28

Gram/hp-hour emission rates for NO_x, CO, HC, and PM are from the manufacturer.

Emission rates for PM_{10} and $PM_{2.5}$ are based on AP-42 Appendix B.2. Generalized Particle Size Distributions, Table B.2-2, Category 1 for Stationary Internal Combustion Engines Firing Gasoline and Diesel Fuel where PM_{10} emissions = 96% of PM emissions and $PM_{2.5}$ emissions = 90% of PM emissions.

Emissions of SO_2 are based on a mass balance calculation for diesel fuel having a sulfur content of 0.0015%:

7.05 lbs/gal x 46 gal/hr x 0.0015% x 2 = 0.01 lbs SO_2/hr

950 HP Diesel Engine Generator
Hazardous Air Pollutant Emissions

pollutant	emission factor	fuel consumption	MMBtu/hr rating	emission rate	emission rate 4,380 hrs/yr	emission rate 8,760 hrs/yr
	lb/MMBtu	gal/hr		lb/hr	tons/yr	tons/yr
Benzene	7.76E-04	46	6.44	5.00E-03	1.09E-02	2.19E-02
Toluene	2.81E-04	46	6.44	1.81E-03	3.96E-03	7.93E-03
Xylenes	1.93E-04	46	6.44	1.24E-03	2.72E-03	5.44E-03
Formaldehyde	7.89E-05	46	6.44	5.08E-04	1.11E-03	2.23E-03
Acetaldehyde	2.52E-05	46	6.44	1.62E-04	3.55E-04	7.11E-04
Acrolein	7.88E-06	46	6.44	5.07E-05	1.11E-04	2.22E-04
total PAH	2.12E-04	46	6.44	1.37E-03	2.99E-03	5.98E-03
total HAPs					**2.22E-02**	4.44E-02

Lb/MMBtu emission factors are from the AP-42, Table 3.4-3 Speciated Organic Compound Emission Factors for Large Uncontrolled Stationary Diesel Engines (10/96) and Table 3.4-4 PAH Emission Factors for Large Uncontrolled Stationary Diesel Engines (10/96).

The stone processing plant emits only fugitive PM emissions and is the only other source of emissions at the facility. Emission rates from the crushers, screens, transfer points, and truck

unloading are from the AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations (8/04). Emission rates from travel on unpaved roads are based on equation 1a of AP-42 Section 13.2.2 Unpaved Roads (11/06). Emission rates from storage piles are based on equation 1 of AP-42 Section 13.2.4 Aggregate Handling and Storage Piles (11/06). Detailed emission calculations are shown on the attached spreadsheets. As stated earlier, Hawaiian Cement is proposing a new grizzly feeder, primary crusher, and screen to replace an existing feeder, crusher, and screen. The equipment being replaced will be retained as backup equipment. Only one set of the feeder, primary crusher, and screen combination will be allowed to operate at a time (i.e. only the primary or the backup equipment). The following Summary of Facility Emissions table depicts emissions from the entire stone processing plant with emissions from the new feeder, primary crusher, and screen since the backup equipment setup results in lower emission rates due to fewer conveyor transfer points.

Summary of Facility Emissions

	NO_x	SO_2	CO	VOC	PM	PM10	PM2.5	HAPs
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
DEG at 4,380 hrs/year and Stone Processing at 1,000,000 tons/year								
diesel engine	23.21	0.02	1.38	0.14	0.11	0.11	0.10	2.22E-02
stone processing	none	none	none	none	9.05	3.78	1.46	none
storage piles	none	none	none	none	5.24	2.48	0.38	none
VMT on unpaved roads	none	none	none	none	21.13	6.24	0.62	none
Total	**23.21**	**0.02**	**1.38**	**0.14**	**35.54**	**12.61**	**2.56**	**2.22E-02**
DEG and Stone Processing at 8,760 hours of operation per year								
diesel engine	46.42	0.04	2.75	0.28	0.23	0.22	0.21	4.44E-02
stone processing	none	none	none	none	75.21	33.53	10.88	none
storage piles	none	none	none	none	33.06	15.64	2.37	none
VMT on unpaved roads	none	none	none	none	132.15	39.00	3.90	none
Total	**46.42**	**0.04**	**2.75**	**0.28**	**240.65**	**88.39**	**17.35**	**4.44E-02**

Air Quality Assessment:

Hawaiian Cement is proposing the operation of a new 950 HP diesel engine generator. The applicant submitted an ambient air quality modeling analysis for all pollutants and averaging periods using ISCST3 with screening meteorology except for NO_x for the 1-hour averaging period where AERMOD with five years of Kahului airport met data was used. The applicant has proposed an operating limit of 4,380 hours of operation per year for the DEG.

The ISCST3 model was performed for the 1-hour averaging period for all pollutants. The EPA-short-term scaling factors and state of Hawaii long-term scaling factor were applied to the results of the model.

Background Air Quality Data

- SO_2, CO, NO_2, PM_{10} concentrations from the Kapolei monitoring station for 2009.
- $PM_{2.5}$ 1-hr concentration is the 3-year average of the 98th percentile concentration, 2007 through 2009, from the Kihei monitoring station.

- $PM_{2.5}$ annual concentration is the 3-year annual average concentration, 2007 through 2009, from the Kihei monitoring station.

Terrain and Receptor Placement

Terrain data is from the USGS Seamless Data Warehouse. The resolution of the data is 1/3 arc-second (approximately 10 meters). The horizontal datum for the data is NAD-83.

Receptors are positioned at 30 meter intervals. The area covered is a 1,020 meter square with the diesel engine generator located at the center.

Building Input Data

The EPA Building Input Profile Input Program was used to derive direction specific building dimensions for importing into the model. The container housing the diesel engine generator was used in the model as a potential source of downwash effects.

Meteorological Data

The applicant used screening meteorology in the ISCST3 model and Kahului airport data for the years 2005 through 2009 in the AERMOD model.

Ozone Concentrations for Ozone Limiting Method

When running the AERMOD model for the 1-hour averaging period for NOx, the applicant used an ozone concentration of 59 ppb for all 1-hour periods for the five years modeled, 2005 through 2009. The use of 59 ppb is conservative since it is the maximum concentration that occurred during the entire five year period. The model output for the 1-hour averaging period NO_2 concentration represents use of the ozone limiting method and the 98th percentile concentration for each year, 2005 through 2009. The average of the five (5) years modeled is presented in the table **Ambient Air Quality Impacts from the Diesel Engine**.

Stack Parameters and Emission Rates Input into the Model

stack	emission rate						stack parameter			
	SO_2 (g/s)	NOx (g/s)	CO (g/s)	PM_{10} (g/s)	$PM_{2.5}$ (g/s)	Pb (g/s)	height (m)	temp (K)	vel (m/s)	diam (m)
diesel engine generator	0.0409	1.336	0.0792	0.0063	0.0059	NA	7.32	780	71	2.3

Ambient Air Quality Impacts from the Diesel Engine

pollutant	averaging period [d]	scaling factor	1-hour averaging period concentration model impact ($\mu g/m^3$ per g/sec)	background concentration ($\mu g/m^3$ per g/sec)	total impact [b] ($\mu g/m^3$)	ambient air quality standards ($\mu g/m^3$)	percentage of standard
SO_2 [c]	1-hour	1	7.37	31	38.37	200	19
	3-hour	0.9	7.37	26	33	1,300	3
	24-hour	0.4	7.37	8	11	365	3

	annual	0.2	7.37	2	3	80	4
NOx	1-hour	1	128.75 [a]	58	187	188	99.33
	annual	0.2	240.59	8	56	70	80
CO	1-hour	1	14.26	4,237	4251	10,000	43
	8-hour	0.7	14.26	2,977	2987	5,000	60
PM_{10}	24-hour	0.4	1.14	37	37	150	25
	annual	0.2	1.14	16	16	50	32
$PM_{2.5}$	24-hour	0.4	1.07	14	14	35	41
	annual	0.2	1.07	4.7	5	15	33
Pb	quarterly	0.4	---	not available	---	1.5	---

[a] NO_2 concentration, 2005 through 2009
1-hour averaging period 98th percentile concentration

pollutant	2005 ($\mu g/m^3$)	2006 ($\mu g/m^3$)	2007 ($\mu g/m^3$)	2008 ($\mu g/m^3$)	2009 ($\mu g/m^3$)	average value ($\mu g/m^3$)
NO_2	128.84	129.01	128.75	128.44	128.69	128.75

[b] Total impact = scaling factor x 1-hour averaging period concentration + background concentration

[c] 1-hour averaging period concentration represents a model impact based on a fuel sulfur content of 0.05% whereas the permit will require the permittee burn fuel with a maximum sulfur content of 0.0015%

[d] The annual averaging period represents operation of the diesel engine generator 8,760 hours per year whereas the applicant proposes an operating limit of 4,380 hours per year.

The ambient air quality standards shown above are the most stringent of the state or federal standards.

The diesel engine generator is projected to operate in compliance with both state and federal ambient air quality standards.

Significant Permit Conditions:

1. Condition: C.1.a.

   The total operating hours of the diesel engine generator shall not exceed 4,380 hours in any rolling twelve (12) month period.

   Purpose:

   Annual limit proposed by the applicant. Potential emissions from the diesel engine generator at 4,380 hours of operation are below significant levels.

2. Condition: C.1.b.

   The diesel engine generator shall be fired only on fuel oil no. 2 with:

i. A maximum sulfur content not to exceed 0.0015% by weight; and
ii. A cetane index or aromatic content as follows:
   1) Minimum cetane index of forty (40); or
   2) Maximum aromatic content of thirty-five (35) volume percent.

Purpose:

The diesel engine generator is subject to 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ.

3. Condition: C.2.

The stack height for the diesel engine generator shall be at least twenty-four (24) feet above base elevation.

Purpose:

Proposed by the applicant to ensure compliance with the ambient air quality standards.

4. Condition: C.3.a.

The maximum production of material from the facility shall not exceed 1,000,000 tons in any rolling twelve (12) month period.

Purpose:

Operating limit proposed by the applicant. Operation of the facility for 8,760 hours per year results in potential emissions exceeding major source levels. With the limit in place, potential emissions from the facility are below major source levels.

5. Condition: C.3.

b. The permittee shall not cause to be discharged into the atmosphere from the 653 TPH Pioneer (Primary) Jaw Crusher, fugitive emissions which exhibit greater than twelve (12) percent opacity.

c. The permittee shall not cause to be discharged into the atmosphere, fugitive emissions which exhibit greater than seven (7) percent opacity, from the:

   i. 840 TPH JCI 3-Deck Screen;
   ii. 525 TPH Deister 2-Deck Screen;
   iii. Any transfer point on the belt conveyors (starting from the 720 TPH Pioneer Grizzly Feeder up to and including conveyor C9 and the conveyor transfer points from the Canica tertiary crushers to the Simplicity tertiary screens of application 0252-06 rev 100618); or
   iv. Any other affected facility (as defined in § 60.670 and 60.671).

d. The permittee shall not cause to be discharged into the atmosphere, fugitive emissions which exhibit greater than fifteen (15) percent opacity, from the:

i. 645 TPH Cedarapids (Secondary) Rollercone Crusher;
ii. 400 TPH Canica (Tertiary No. 1) Impact Crusher; and
iii. 600 TPH Canica (Tertiary No. 2) Impact Crusher.

e. The permittee shall not cause to be discharged into the atmosphere from the two (2) Simplicity 8' x 20' Triple Deck Tertiary Screens, any transfer point on the belt conveyors (beginning with conveyor C6 of application 0252-06 rev 100617 and all conveyor transfer points following conveyor C6 in the process line, excluding the conveyor transfer points from the Canica tertiary crushers to the Simplicity tertiary screens) or from any other affected facility (as defined in § 60.670 and 60.671), fugitive emissions which exhibit greater than ten (10) percent opacity.

f. Backup Equipment

i. The permittee shall not cause to be discharged into the atmosphere from the 600 TPH Metso Minerals 4' x 8' Double Deck Scalping Screen and all associated conveyor transfer points, fugitive emissions which exhibit greater than ten (10) percent opacity.

Purpose:

The equipment subject to the visible emission limits are affected facilities subject to 40 CFR Part 60, Subpart OOO.

6. Condition: C.3.g.

The stone processing plant shall be configured to the layout identified in the covered source permit application, or to an alternate configuration meeting the following:

i. The permittee shall not operate the stone 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; and
ii. The permittee shall not operate the stone processing plant in a configuration that would cause an increase in the capacity of the process flow.
iii. The permittee shall not operate the backup equipment at the same time as the equipment it replaces. The permittee may replace the:

1) 720 TPH Pioneer Grizzly Feeder with the 700 TPH Cedarapids Apron Feeder with Hopper;
2) 653 TPH Pioneer Jaw Crusher with the 800 TPH Pioneer Jaw Crusher; and
3) 840 TPH JCI 3-Deck Screen with the 600 TPH Metso Minerals 4' x 8' Double Deck Scalping Screen.

Purpose:

Noncompliance with the above scenarios would potentially result in an increase in potential emissions.

Conclusion: Hawaiian Cement is proposing to modify the existing stone processing plant to replace/add feeders, a crusher, screens and the addition of a diesel engine generator. The "old" feeder, primary crusher, and screen at the start of the processing line will be retained as backup

equipment and will be allowed to operate only when the new feeder, crusher, and screen at the start of the process line are not operating. The stone processing plant is subject to 40 CFR Part 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. The diesel engine generator is subject to 40 CFR Part 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR Part 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The ambient air quality analysis performed by the applicant demonstrates the diesel engine generator is projected to operate in compliance with the ambient air quality standards as it is proposed in the application.

Issuance of a Covered Source Permit is recommended based on the review of the information provided in the application and subject to the conditions of the permit, 30-day public comment period, and 45-day EPA review.