

**MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT  
TITLE V OPERATING PERMIT TV68-01  
EVALUATION REPORT**

24580 Silver Cloud Court  
Monterey, CA 93940  
Telephone: (831) 647-9411

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APPLICATION RECEIVED FROM:

Granite Rock Company  
P.O. Box 50001  
Watsonville, CA 95077-5001

PLANT SITE LOCATION:

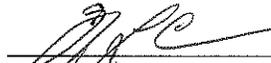
Arthur R. Wilson Quarry  
End of Quarry Road  
Aromas, CA 95004

APPLICATION PROCESSED BY:

Mike Sewell, Air Quality Engineer

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APPROVED FOR RELEASE BY:

  
\_\_\_\_\_  
Gregory Chee  
Engineering Division Supervisor

NOV 14 2012  
\_\_\_\_\_  
Date

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Dated: November 6, 2012

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Nature of Business: Granite Harvesting and Processing

SIC Codes: 1423 - Crushed and Broken Granite  
2951 - Asphalt Paving Mixtures

**RESPONSIBLE OFFICIAL:**

Name: Mr. Jack Leemaster  
Title: Aggregate Division Manager  
Phone: (831) 768-2000

**FACILITY CONTACT PERSON:**

Name: Mr. Henry Ramirez  
Title: Quarry Manager  
Phone: (831) 768-2311

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## **PROJECT DESCRIPTION**

The facilities' existing Title V permit (TV48-01) expires on December 31, 2012. This application is for renewal of this Title V Permit on the required five-year renewal cycle.

## **FACILITY DESCRIPTION**

Granite Rock Company operates a rock quarry and asphaltic concrete plants at its Wilson Quarry facility located near the town of Aromas in San Benito County.

The granite deposit is accessed by removing a top layer known as overburden which is transported away from the site by a covered overland conveyor. The granite is loosened from the face by blasting and dozer ripping. The harvested rock is processed in a gyratory crusher and then conveyed to the main plant where secondary crushing, sizing, and washing take place in preparation for railcar and truck loadout for sale to end users or for transfer to the asphaltic concrete plants.

In addition, the facility accepts broken concrete and asphalt at the quarry site. This material is processed into a recycled base rock product by the use of a portable rock crushing and screening plant.

Granite Rock's facility is considered a federal Major Source and subject to the Title V permitting program based upon the potential to emit Carbon Monoxide (CO) and Particulate Matter (PM).

## **EQUIPMENT DESCRIPTION**

### **QUARRY OPERATION CONSISTING OF:**

1. Overburden Removal System: Overburden Stripped By Mobile Equipment, Discharged To Overland Conveyor System For Transport To Fill Canyons. Final Placement And Compaction By Mobile Equipment.
2. Mobile Drilling And Surface Mining Equipment, Mined Material To Primary Crusher And To Screening Plant With Material To Stockpiles For Sale Or To Secondary Crushing And Screening Plant.
3. Secondary Crushing And Screening Plant With Material To Stockpiles For Sale Or To Product Reclaim.
4. Product Reclaim: Material Conveyed From Stockpiles To Truck & Railcar Loadout For Sale Or Provided As Raw Materials To The Asphaltic Concrete Facility.
5. Asphaltic Concrete Facility Consisting Of:
  - a) Asphalt Receiving, Heating And Storage: Asphalt Received From Truck And Railcar, Heat Provided To Unload Rail Car By Diesel Fired Equipment With Less Than 1.5 MMBtu/Hr Heat Input, Heat Provided

To Storage Tanks By Natural Gas Fired Equipment With Less Than 6.0 MMBtu/Hr Heat Input, Total Storage Capacity Of 209,000 Gallons Providing Asphalt To The Astec Drum Mix & Madsen Plants.

- b) Asphalt Receiving, Heating And Storage: Asphalt Received From Truck, Heat Provided To Storage Tanks By Natural Gas Or Propane Fired Equipment With Less Than 2.5 MMBtu/Hr Heat Input, Total Storage Capacity Of 50,000 Gallons Providing Asphalt To The Astec Batch Plant.
  - c) Astec Continuous Asphaltic Concrete Drum Plant: Five 100 Ton Raw Material Storage Bins Providing Material To The 123 MMBtu/Hr Natural Gas Or Fuel Oil Number 2 Fired Drum Mixer Which Is Vented to A Baghouse Dust Collector And Discharging The Asphalt Concrete To Four Storage Bins With A Total Capacity Of 750 Tons. Material Collected In The Baghouse Is ReinjecteD Pneumatically Into The Drum Mixer.
  - d) Madsen Asphaltic Concrete Batch Plant: Five 100 Ton Raw Material Storage Bins Providing Materials To The 100 MMBtu/Hr Natural Gas Fired (Fuel Oil Number 2 Standby) Rotary Aggregate Dryer Which Is Vented to The Dust Collection System And Discharging Heated Aggregate To The Aggregate Screen And To Four 40 Ton Overhead Storage Bins. The Overhead Storage Bins And Mineral Silo Discharge To The Aggregate Weigh Hopper (Which Is Vented To The Dust Collection System) And To The Madsen Mixer Which Discharges To Truck Loadout Or To The Shuttle Conveyor For Transfer To Storage In The Astec Continuous Asphalt Concrete Mixing Plant Storage Bins. Dust Collection System Consists Of A Cyclone And A Baghouse Dust Collector, With The Collected Dust Material Transferred Pneumatically To The Mineral Silo.
  - e) Astec Asphaltic Concrete Batch Plant: 150 MMBtu/Hr Natural Gas Or Propane Fired Rotary Aggregate Dryer (Which Is Vented to The Dust Collection System), Discharging The Heated Aggregate To The Hot Aggregate Screen And To Four Hot Aggregate Storage Bins With A Total Capacity Of 100 Tons. The Bins Discharge To A Weigh Hopper And To A 6 Ton Capacity Pugmill Which Discharges To Truck Loadout Or To Two Surge Silos, Each With A 200 Ton Capacity. The Storage Bins, Weigh Hopper, And The Pugmill Are All Vented To The Dust Collection System, And The Truck Loadout And The Surge Silos Are Vented To The Blue Smoke Recovery System Which Vents To The Dryer Inlet. Dust Collection System Consists Of A Cyclone And A Baghouse Dust Collector, With The Collected Dust Material To The Hot Aggregate Screen Or The Pugmill.
- 6. Portable Rock Crushing & Screening Plant (TelSmith II) Powered By A Diesel Engine Generator Set, 600 KW Power Output.
  - 7. Portable Sand Classifier.
  - 8. Portable Riprap Plant, Powered By A Diesel Engine Generator Set, 200 KW Power Output.
  - 9. Portable Screening Plant, Powered By A Diesel Engine Generator Set, 200 KW Power Output.

10. Ancillary Equipment:

Lake Dredge, Powered By A 460 Bhp Diesel Engine.

Emergency 1809 Bhp Diesel Engine Generator Set, 1250 KW Electrical Output.

Portable Two Deck Screen, Powered By A 90 Bhp Diesel Engine.

Gasoline Dispensing Facility: 1000 Gallon Above Ground Gasoline Storage Tank With Phase I And Phase II Vapor Recovery.

Two Portable Trailer Mounted Air Compressors, Each Powered By A 85 Bhp Diesel Engine.

Portable Trailer Mounted 1.26 MMBtu/Hr Boiler, Fired By Fuel Oil #2.

**APPLICABLE FEDERAL REQUIREMENTS**

Rule 200 - Permits Required

Rule 201 - Sources Not Requiring Permits

Rule 207 - Review of New or Modified Sources

Rule 214 - Breakdown Condition

Rule 218 - Title V: Federal Operating Permits

Rule 308 - Title V: Federal Operating Permit Fees

Rule 400 - Visible Emissions

Rule 403 - Particulate Matter

Rule 404 - Sulfur Compounds and Nitrogen Oxides

Rule 412 - Sulfur Content of Fuels

Rule 417 - Storage of Organic Liquids

Rule 418 - Transfer of Gasoline into Stationary Storage Containers

Rule 426 - Architectural Coatings

Rule 433 - Organic Solvent Cleaning

Rule 1002 - Transfer of Gasoline into Vehicle Fuel Tanks

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions

40 CFR Part 60, Subpart Dc - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

40 CFR Part 60, Subpart I - Standards of Performance for Hot Mix Asphalt Facilities

40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

40 CFR Part 64 - Compliance Assurance Monitoring

40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)

40 CFR Part 82 - Protection of Stratospheric Ozone

## **COMPLIANCE DETERMINATION FOR APPLICABLE FEDERAL REQUIREMENTS**

### Rule 200 - Permits Required

This facility has historically complied with the requirements of this rule and continued compliance is expected.

### Rule 201 - Sources Not Requiring Permits

This rule identifies which equipment is exempt from District permitting requirements.

### Rule 207 - Review of New or Modified Sources

This facility predates the NSR requirements as quarry operations started after 1900.

Modernization of the quarry operation in the late 1980's triggered BACT for the quarry equipment. The primary and secondary crushing, the product reclaim and the truck/railcar loadout were all permitted through the NSR process. The conditions included on these NSR permits are federally enforceable and will be included on the Title V permit.

All other equipment at the facility has not undergone NSR permitting.

### Rule 214 - Breakdown Condition

This rule specifies conditions and procedures for breakdowns. A condition which incorporates these requirements will be included on the permit.

### Rule 218 - Title V: Federal Operating Permits

This is the implementing regulation by which the District issues the federal Operating Permits. All requirements imposed by this rule will be included on the Title V permit.

### Rule 308 - Title V: Federal Operating Permit Fees

This is the District's fee rule for Title V. Appropriate conditions will be included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

### Rule 400 - Visible Emissions

This rule is applicable to the emissions from the facility. Appropriate conditions will be included on the permit to ensure compliance with this rule.

### Rule 403 - Particulate Matter

Rule 403 specifically exempts stationary internal combustion engines from its requirements. Therefore, with the exception of IC engines, the 0.15 grains per dry cubic foot emission standard is applicable to all stationary fuel fired equipment at the facility. In addition with the exception of IC engines, the 0.15 grains per dry cubic foot emission standard and the process weight standards are applicable to all point sources at the facility.

All sources exhausting through baghouse dust collectors are assumed to be in compliance with these rule requirements based upon the efficiency of a properly designed baghouse dust collector and the issuance of the local District permits. Prior to permit issuance, District staff verified that the equipment was properly designed and in compliance with the grain loading and process weight requirements of this rule. In addition, source testing has shown compliance with the rule requirements. Based upon the existing District permits, the fact that the process has not changed (no increase in grain loading to baghouse dust collectors) and the source testing data, this permit will only require particulate sampling of the baghouse dust collector exhaust upon the observation of visual emissions from the baghouse dust collector except during periods of process breakdowns or upsets as allowed for and reported under District Rule 214.

Asphalt Heaters - Based upon the requirements of Rule 403, the volumetric flow rate of 8,740 SDCF/MMBtu firing natural gas and 9,220 SDCF/MMBtu firing oil would establish an emission limit of 0.187 Lbs PM<sub>10</sub>/MMBtu on natural gas and 0.198 Lbs PM<sub>10</sub>/MMBtu on oil [NG - (8,740 SDCF)\*(0.15 grains/SDCF)\*(1 lb/7000 grains) = 0.187 Lbs PM<sub>10</sub>/MMBtu; Oil - (9,220 SDCF)\*(0.15 grains/SDCF)\*(1 lb/7000 grains) = 0.198 Lbs PM<sub>10</sub>/MMBtu]. AP-42 establishes an emission limit of 7.6 Lbs PM<sub>10</sub>/MMCF natural gas and 3.3 Lbs PM<sub>10</sub>/Kgal oil combusted (from Table 1.4-2 and Table 1.3-1 & 1.3-2 both dated 7/98 and 9/98, respectively) which would equate to a emissions of 0.0072 Lbs PM<sub>10</sub>/MMBtu while firing on natural gas [(7.6 Lbs PM<sub>10</sub>/MMCF)\*(MMCF/1050 MMBtu) = 0.0072 Lbs PM<sub>10</sub>/MMBtu] and 0.022 Lbs PM<sub>10</sub>/MMBtu while firing on oil [(6.53 gals/MMBtu)(3.3 Lbs TSP/Kgal)(Kgal/1000 gal) = 0.022 Lbs TSP/MMBtu]. Both the gas and oil emissions calculated based on AP-42 factors are well below the Rule 403 grain loading requirement. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this fuel fired equipment.

#### Rule 404 - Sulfur Compounds and Nitrogen Oxides

This rule is applicable to the emissions from the facility.

Internal Combustion Sources (Diesel Engines) - Compliance with the 0.2% by volume (2000 ppmv) limit for SO<sub>2</sub> is assumed due to the following calculation based upon the AP-42 emission factor of 0.29 Lbs SO<sub>2</sub>/MMBtu heat input. Utilizing this emission factor and the F factor from EPA method 19, the SO<sub>2</sub> concentration for a diesel engine would equate to 187.2 ppmv [(0.29 Lbs SO<sub>2</sub>/MMBtu)\*((moles SO<sub>2</sub>)/(64.1 lbs SO<sub>2</sub>))\*(379 Ft<sup>3</sup> Air)/lbmole air)/((9,190 SDCF/MMBtu)\*(10<sup>6</sup>) = 187.2 ppmv] This value is well below the 2000 ppmv SO<sub>2</sub> allowed in this rule. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the SO<sub>2</sub> limit for the diesel fired engines.

Compliance with the NO<sub>x</sub> limit of 140 lb/hr from the diesel fired engines is assumed due to the following emission calculation based upon the AP-42 emission factors of 0.031 Lbs NO<sub>x</sub>/Hp-hr. An emission rate of 140 Lbs/hr would equate to an engine of 4516 Hp [(140 Lbs/hr)/(0.031 Lbs NO<sub>x</sub>/Hp-hr) = 4516 Hp]. The largest diesel engine at the facility is 1,809 Bhp, and is not capable of exceeding the 140 lb hour NO<sub>x</sub> limit. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 140 lb/hr NO<sub>x</sub> limit for the diesel fired engines.

External Combustion Sources - Compliance with the 0.2% by volume (2000 ppmv) limit for SO<sub>2</sub> is assured due to the following calculations based upon the AP-42 emission factors of 0.6 Lbs SO<sub>2</sub>/MMCF natural gas burned, 0.015 Lbs SO<sub>2</sub>/Kgal propane combusted, and 71 Lbs SO<sub>2</sub>/Kgal diesel burned. Emissions would equate to 0.00006 Lbs SO<sub>2</sub>/MMBtu while firing on NG [(0.6 Lbs SO<sub>2</sub>/MMCF)\*(MMCF/1050 MMBtu) = 0.00006 Lbs SO<sub>2</sub>/MMBtu], 0.0002 Lbs SO<sub>2</sub>/MMBtu while firing on propane [(10.93 gal/MMBtu)\*(0.015 Lbs SO<sub>2</sub>/Kgal)\*(Kgal/1000 gal) = 0.0002 Lbs SO<sub>2</sub>/MMBtu], and 0.46 Lbs SO<sub>2</sub>/MMBtu while firing on diesel [(6.53 gals/MMBtu)(71 Lbs

$\text{SO}_2/\text{Kgal}(\text{Kgal}/1000 \text{ gal}) = 0.46 \text{ Lbs SO}_2/\text{MMBtu}$ . These calculated emissions would equate to 0.04 ppmv while combusting natural gas  $[(0.00006 \text{ Lbs SO}_2/\text{MMBtu}) * ((\text{MM lbmoles air}) / (64.1 \text{ lbmole SO}_2)) * ((379 \text{ Ft}^3 \text{ Air}) / (\text{lbmole air})) / (8,740 \text{ SDCF/MMBtu}) = 0.04 \text{ ppmv}]$ , 0.04 ppmv while combusting propane  $[(0.0002 \text{ Lbs SO}_2/\text{MMBtu}) * ((\text{MM lbmoles air}) / (64.1 \text{ lbmole SO}_2)) * ((379 \text{ Ft}^3 \text{ Air}) / (\text{lbmole air})) / (8,740 \text{ SDCF/MMBtu}) = 0.14 \text{ ppmv}]$ , and 0.04 ppmv while combusting diesel  $[(0.46 \text{ Lbs SO}_2/\text{MMBtu}) * ((\text{MM lbmoles air}) / (64.1 \text{ lbmole SO}_2)) * ((379 \text{ Ft}^3 \text{ Air}) / (\text{lbmole air})) / (9,220 \text{ SDCF/MMBtu}) = 295 \text{ ppmv}]$ . All of these values are well below the 2000 ppmv  $\text{SO}_2$  allowed in this rule. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the  $\text{SO}_2$  limit for the external combustion sources.

Compliance with the 140 lb/hr  $\text{NO}_x$  limit is assured due to the following calculations based upon the AP-42 emission factors of 140 Lbs  $\text{NO}_x$ /MMCF natural gas combusted, 19 Lbs  $\text{NO}_x$ /Kgal propane combusted, and 20 Lbs  $\text{NO}_x$ /Kgal diesel combusted. Emissions would equate to 0.133 Lbs  $\text{NO}_x$ /MMBtu while firing on natural gas  $[(140 \text{ Lbs NO}_x/\text{MMCF}) * (\text{MMCF}/1050 \text{ MMBtu}) = 0.133 \text{ Lbs NO}_x/\text{MMBtu}]$ , 0.21 Lbs  $\text{NO}_x$ /MMBtu while firing on propane  $[(10.93 \text{ gal/MMBtu}) * (19 \text{ Lbs NO}_x/\text{Kgal}) * (\text{Kgal}/1000 \text{ gal}) = 0.21 \text{ Lbs NO}_x/\text{MMBtu}]$ , and 0.13 Lbs  $\text{NO}_x$ /MMBtu while firing on diesel  $[(6.53 \text{ gals/MMBtu}) * (20 \text{ Lbs SO}_2/\text{Kgal}) * (\text{Kgal}/1000 \text{ gal}) = 0.13 \text{ Lbs SO}_2/\text{MMBtu}]$ . To exceed the 140 lb/hr limit would require a natural gas fired burner larger than 1050 MMBtu/hr, a propane fired burner larger than 666 MMBtu/hr and diesel fired equipment with a rating of greater than 1075 MMBtu/hr. The heat ratings of all of the fuel fired equipment are well below these values, which establishes that none of external combustion equipment at the facility has the capability of exceeding the 140 lb/hr  $\text{NO}_x$  limit from this rule. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 140 lb/hr  $\text{NO}_x$  limit for the external combustion sources.

#### Rule 412 - Sulfur Content of Fuels

This rule which requires that the sulfur content of fuels combusted be less than 50 grains per 100 cubic feet for gaseous fuel and less than 0.5% by weight for liquid or solid fuel is applicable to this facility. Combustion of PUC natural gas or propane assures compliance with the 50 grain limit while the diesel fuel is in compliance with the less than 0.5% by weight sulfur content.

Conditions will be included on the permit to verify compliance with the requirements of this rule.

#### Rule 417 - Storage of Organic Liquids

This rule requires vapor loss control devices on organic storage tanks greater than 150,000 liters (39,630 gallons) if the organic liquid stored has a true vapor pressure of 1.5 psi at actual storage conditions.

The largest storage tanks at the facility are 30,000 gallons. Therefore, the facility is not subject to the requirements of this rule.

#### Rule 418 - Transfer of Gasoline into Stationary Storage Containers

This rule requires that the gasoline storage tank have a submerged fill pipe and that Phase I Vapor recovery be utilized when filling the tank. The rule also requires specific record keeping regarding the quantity of fuel delivered to the facility. The facility is in compliance with the requirements of this rule.

Appropriate conditions will be included on the permit to ensure compliance with the requirements of this rule.

Rule 426 - Applications of Architectural Coatings

This rule is applicable to all applications of architectural coatings and limits the VOC content of these coatings. The facility is in compliance with the requirements of this rule.

An appropriate condition will be included on the permit to ensure compliance with the requirements of this rule.

Rule 433 - Organic Solvent Cleaning

This rule contains specific operational and record keeping requirements for solvent cleaning and degreasing operations.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 1002 - Transfer of Gasoline into Vehicle Fuel Tanks

This rule contains specific requirements for the installation and operation of ARB Certified Vapor Recover (phase II) systems on gasoline dispensing facilities.

Appropriate conditions will be included on the permit to ensure compliance with requirements of this rule.

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions

This facility is subject to the requirements of 60.7 (notification and record keeping), 60.8 (performance tests), 60.11 (compliance with standards and maintenance requirements), and 60.13 (monitoring requirements) because they are subject to 40 CFR Part 60, Subparts I and OOO.

The District asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, 60.11, and 60.13.

40 CFR Part 60, Subpart Dc - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

All steam generating equipment at the facility have heat input ratings less than the 10 MMBtu/hr applicability criteria contained in this Subpart. Therefore, the facility is not subject to the requirements of this Subpart.

40 CFR Part 60, Subpart I - Standards of Performance for Hot Mix Asphalt Facilities

The Astec Continuous Drum Mix Plant and the Madsen Plant predate the requirements of this part, as they were in operation prior to June 11, 1973, and have not undergone modification.

The Astec Batch Plant is subject to the requirements of this part. Appropriate conditions will be included on the permit to ensure compliance with the requirements of this part.

40 CFR Part 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

All equipment at the facility is subject to the requirements of this Subpart with the exception of the overland conveyor system, the asphalt facilities, the ancillary equipment, and the primary crusher. The overland conveyor is exempt because the material transported on it is not processed, the Astec Batch Plant is specifically exempted in Subpart OOO due to being subject to Subpart I, the other asphalt plants predate the requirements of this part, and the

primary crusher predates the requirements of this part as the date of manufacture of the crusher was July 14, 1983.

Appropriate conditions will be included on the permit to ensure compliance with the requirements of this part.

40 CFR Part 64 - Compliance Assurance Monitoring

The asphaltic concrete batch plants are subject to the requirements of this part due to the use of baghouses which limit particulate emissions.

Each of the asphaltic concrete plants baghouses will be indirectly monitored for compliance with the PM emission limits by measuring the pressure drop across the baghouses. Baghouse design criteria, previous source tests, and operations data show that a pressure drop less than 2 inches and greater than 6 inches for the Astec Batch, less than 5 inches and greater than 11 inches for the Astec Drum Plant, and less than 4 inches and greater than 10 inches for the Madsen Batch Plant verifies compliance with the permitted PM limits based upon local District permit issuance and testing. At least one data point for pressure drop across each baghouse will be collected on any day that the asphaltic concrete plant that the baghouse serves is operated.

40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)

This facility is not subject to the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with the Part 68 requirements if the facility were to become subject.

40 CFR Part 82 - Protection of Stratospheric Ozone

This facility is in compliance with the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with these requirements.

**THE FOLLOWING WILL BE INCLUDED ON THE TITLE V PERMIT:**

**FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS**

1. Quarry production shall not exceed 43,200 tons per day. [District Rule 207]
2. All crushers in the quarry operation with the exception of the primary crusher shall be enclosed and/or equipped and operated with dust suppressant systems as necessary such that no fugitive emissions are discharged to atmosphere which exhibit greater than 15% opacity. [District Rule 207; 40 CFR Part 60, Subpart 000]
3. Process materials shall contain sufficient natural or added moisture as necessary such that no fugitive emissions are discharged to atmosphere from screens, storage bins, and conveyor transfer points in the quarry operation downstream of the primary process which exhibit greater than 10% opacity, except where material is being transferred to a stockpile. [District Rule 207; 40 CFR Part 60, Subpart 000]

4. For all plant operations, including stockpiles, sufficient natural or added moisture shall be contained in the materials handled to prevent fugitive emissions equal to or exceeding 20% opacity, or equivalent Ringelmann 1, for any period or periods aggregating more than three minutes in any one hour. [District Rule 207]
5. Haul roads, access roads and general plant areas shall be paved, sprayed with chemical stabilizers, kept sufficiently moist, or otherwise maintained to prevent excessive fugitive emissions from vehicle traffic or front end loader activity. Excessive fugitive emissions are defined as “emissions equal to or exceeding 20% opacity for any period or periods aggregating more than three minutes in any one hour, or which cause a public nuisance.” [District Rule 207]
6. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1, or equivalent 20% opacity. [District Rule 400; 40 CFR Part 60, Subpart I for the Astec Batch Plant]
7. Particulate matter shall not exceed 0.04 grains per standard dry cubic foot in the exhaust stream from the Astec Asphaltic Concrete Batch Plant. [40 CFR Part 60, Subpart I]
8. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]
9. Particulate matter shall not exceed the lessor of 40 pounds per hour or the pound per hour limit established by the following mass emission limit equation [District Rule 403]:  
$$E = 4.10P^{0.67}$$

Where:  
E =rate of emission in pounds per hour  
P =process weight rate in tons per hour
10. Sulfur compounds calculated as sulfur dioxide (SO<sub>2</sub>) shall not exceed 0.2 percent by volume in any exhaust stream. [District Rule 404]
11. Oxides of Nitrogen, calculated as nitrogen dioxide (NO<sub>2</sub>), shall not exceed 140 Lbs/hr in any exhaust stream. [District Rule 404]
12. Oxides of Nitrogen, calculated as nitrogen dioxide (NO<sub>2</sub>), from all gaseous fuel fired equipment shall not exceed 350 ppmv, calculated at 3 percent O<sub>2</sub>, dry. [District Rule 404]

13. The sulfur content on any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]
14. The sulfur content on any gaseous fuel used at the facility shall not contain sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 50 grains per 100 cubic feet. [District Rule 412]
15. Granite Rock Company shall operate the storage tank at the gasoline dispensing facility with a permanent submerged fill pipe. [District Rule 418]
16. Granite Rock Company shall prevent the emission of 95 percent by weight of the gasoline vapors displaced during the filling of the storage tank at the gasoline dispensing facility by the use of Phase I Vapor Recovery. [District Rule 418]
17. Granite Rock Company shall operate a Phase II vapor recovery system on the Gasoline Storage Tank which has been certified by the California Air Resources Board. [District Rule 1002]
18. Granite Rock Company shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]
19. Granite Rock Company shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]
20. Upon detection of an excursion as defined in condition number 35, Granite Rock Company shall restore the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR Part 64]
21. Granite Rock Company shall submit a Compliance Assurance Monitoring Quality Improvement Plan (QIP) to the District as specified in 40 CFR §64.8 if the accumulation of excursions monitored under condition number 35 exceed 5 percent of the pollutant-specific emissions unit's operating time for a reporting period. [40 CFR Part 64]
22. Should the facility, as defined in 40 CFR §68.3 become subject to Part 68, then Granite Rock Company shall submit a risk management plan (RMP) by the date specified in 40 CFR §68.10. Once subject to Part 68, Granite Rock Company shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit. [40 CFR Part 68]
23. Granite Rock Company shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

## TESTING REQUIREMENTS AND PROCEDURES

24. Granite Rock Company shall conduct testing annually, in accordance with the methodology contained in EPA Method 22 with the exception that only one observation is required for each source. This testing will be the basis for determining compliance with condition numbers 2 and 3. This testing requirement does not apply to any wet process where the process flow is dependent on water flow as compliance is assured due to the moisture content inherent in the process.

If no emissions are observed utilizing this modified Method 22, no further testing shall be required.

If emissions are observed from any source and that source is not operating under breakdown condition as defined in and allowed for in the District Rule 214 (Adopted 9/1/1974), Granite Rock Company shall conduct testing on that source within 24 hours of the modified Method 22 testing in accordance with the methodology contained in EPA Method 9 to verify compliance with condition numbers 2 and 3 for that source. [District Rule 218]

25. Granite Rock Company shall conduct testing annually, in accordance with the methodology contained in EPA Method 22 with the exception that only one observation is required for each source. This testing will be the basis for determining compliance with condition numbers 4 and 5. This testing requirement does not apply to any wet process where the process flow is dependent on water flow as compliance is assured due to the moisture content inherent in the process.

If no emissions are observed utilizing this modified Method 22, no further testing shall be required.

If emissions are observed from any source and that source is not operating under breakdown condition as defined in and allowed for in the District Rule 214 (Adopted 9/1/1974), Granite Rock Company shall conduct testing on that source within 24 hours of the modified Method 22 testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with condition numbers 4 and 5 for that source. [District Rule 218]

26. Granite Rock Company shall conduct testing annually, in accordance with the methodology contained in EPA Method 22 with the exception that only one observation is required for all non-point sources. This testing will be the basis for determining compliance with condition number 6. This testing requirement does not apply to any wet process where the process flow is dependent on water flow as compliance is assured due to the moisture content inherent in the process.

If no emissions are observed utilizing this modified Method 22, no further testing shall be required.

If emissions are observed from any non-point source and that non-point source is not operating under breakdown condition as defined in and allowed for in the District Rule 214 (Adopted 9/1/1974), Granite Rock Company shall conduct testing on that source within 24 hours of the modified Method 22 testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period

contained in District Rule 400 to verify compliance with condition number 6 for that non-point source.  
[District Rule 218]

27. Granite Rock Company shall conduct testing annually, in accordance with the methodology contained in EPA Method 22 with the exception that only one observation is required to verify compliance with condition numbers 6, 7, 8 and 9 for all point sources. This testing requirement does not apply to any wet process where the process flow is dependent on water flow as compliance is assured due to the moisture content inherent in the process.

If no emissions are observed utilizing this modified Method 22, no further testing is required.

If emissions are observed from any point source and that point source is not operating under breakdown conditions as defined in and allowed for in District Rule 214, Granite Rock Company shall conduct testing on that point source [District Rule 218]:

- 1) within 24 hours of the Method 22 testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with condition 6; and
  - 2) within 30 days of the Method 22 testing in accordance with EPA Method 5 or 5D to verify compliance with the requirements of condition numbers 7 and/or 8 and 9.
28. No testing is specified for the (District Rule 404) sulfur concentration limit in condition number 10. The fuel burning equipment is assumed to be in compliance with this sulfur concentration limit based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number 10, Granite Rock Company should conduct testing in accordance with the methodology contained in EPA Method 6 or equivalent method. [District Rule 218]
29. No testing is specified for the (District Rule 404) NO<sub>x</sub> (oxides of nitrogen) limit in condition numbers 11 and 12. The fuel burning equipment is assumed to be in compliance with these NO<sub>x</sub> limits based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition numbers 11 and 12, Granite Rock Company should conduct testing in accordance with the methodology contained in EPA Method 7 or equivalent method. [District Rule 218]
30. Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel oil, or in lieu of testing a manufacturers certification of the sulfur content of the fuel oil shall be supplied at the time of delivery. Granite Rock Company shall conduct testing in accordance with ASTM D1552, ASTM D1266, ASTM D2622 or equivalent method or shall receive certification as to the sulfur content of the fuel oil from the manufacturer to verify compliance with condition number 13. [District Rule 218]
31. No testing is specified for the (District Rule 412) sulfur content of gaseous fuels limit in condition number 14 as long as the only gaseous fuels fired are pipeline quality natural gas and propane. If the facility fires other gaseous fuels, Granite Rock Company shall conduct testing of all the other gaseous fuel(s) in

accordance with ASTM D072, ASTM D3031, ASTM D3246, SCAQMD Method 307 or equivalent method to verify compliance with condition number 14. [District Rule 218]

#### **MONITORING AND RECORD KEEPING REQUIREMENTS**

32. Granite Rock Company shall maintain records showing the daily quarry production. [District Rule 218]
33. Granite Rock Company shall maintain records showing the quantity of all gasoline delivered to the gasoline dispensing facility. [District Rule 418]
34. Granite Rock Company shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

35. Granite Rock Company shall maintain the following compliance assurance monitoring as specified below [40 CFR Part 64]:
  - a) The pressure drop across the baghouse for the Astec Asphaltic Concrete Batch Plant shall be monitored and recorded at least once per day on any day that this equipment is operating. Excursions from the monitoring parameters are defined as a pressure drop less than 2 inches or a pressure drop greater than 5 inches. A magnahelic gauge will be utilized for the monitoring.
  - b) The pressure drop across the baghouse for the Astec Asphaltic Concrete Drum Plant shall be monitored and recorded at least once per day on any day that this equipment is operating. Excursions from the monitoring parameters are defined as a pressure drop less than 5 inches or a pressure drop greater than 11 inches. A magnahelic gauge will be utilized for the monitoring.
  - c) The pressure drop across the baghouse for the Madsen Asphaltic Concrete Batch Plant shall be monitored and recorded at least once per day on any day that this equipment is operating. Excursions from the monitoring parameters are defined as a pressure drop less than 4 inches or a pressure drop greater than 10 inches. A magnahelic gauge will be utilized for the monitoring.
36. As applicable Granite Rock Company shall maintain the following general records of required monitoring information [District Rule 218]:
  - A) the date and time of sampling or measurements;
  - B) the date(s) analyses were performed;

- C) the company or entity that performed the analyses;
- D) the analytical techniques or methods used;
- E) the results of such analyses;
- F) the operating conditions existing at the time of sampling or measurement; and
- G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

37. Granite Rock Company shall maintain records on the occurrence and duration of any startup, shutdown, or malfunction in the operation of the control equipment under this permit. [District Rule 218]
38. Granite Rock Company shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [District Rule 218]

#### **REPORTING REQUIREMENTS**

39. Granite Rock Company shall report all breakdowns which results in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence; this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if Granite Rock Company demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within 24 hours of the occurrence and a written report shall be supplied to the APCO within 5 days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:

- a) a statement that the condition or failure has been corrected and the date of correction; and
  - b) a description of the reasons for the occurrence; and
  - c) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and
  - d) an estimate of the emissions caused by the condition or failure.
40. Granite Rock Company shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218]

These monitoring reports shall include at a minimum:

- A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and
- B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and
- C) all information pertaining to any monitoring as required by this permit; and
- D) a negative declaration specifying when no excess emissions occurred.

41. Granite Rock Company shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

- A) identification of each term or condition of the permit that is the basis of the certification; and
- B) the compliance status; and
- C) whether compliance was continuous or intermittent; and
- D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

#### **GENERAL CONDITIONS**

42. Granite Rock Company shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]
43. In an enforcement action, the fact that Granite Rock Company would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]
44. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Granite Rock Company for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not

stay any permit condition. [District Rule 218]

45. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]
46. Granite Rock Company shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, Granite Rock Company shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]
47. For applicable requirements that will become effective during the permit term, Granite Rock Company shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]
48. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Granite Rock Company shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]
49. Granite Rock Company shall report any violation of any requirement contained in this permit to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]
50. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with. [District Rule 218]
51. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, Granite Rock Company shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]
52. Granite Rock Company shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]
53. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for Granite Rock Company shall submit to the District relevant evidence which demonstrates [District Rule 218]:

- A) an emergency occurred; and
  - B) that Granite Rock Company can identify the cause(s) of the emergency; and
  - C) that the facility was being properly operated at the time of the emergency; and
  - D) that all steps were taken to minimize the emissions resulting from the emergency; and
  - E) within two working days of the emergency event, Granite Rock Company provided the District with a description of the emergency and any mitigating or corrective actions taken.
54. Upon presentation of credentials, Granite Rock Company shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:
- A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;
  - B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;
  - C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,
  - D) to sample emissions from the source.

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