



NON-METALLIC MINERAL PROCESSING PLANTS



COMPLIANCE INSPECTION CHECKLIST

INSPECTION TYPE: ANNUAL (INS1, INS2) COMPLAINT/DISCOVERY (CI)
 RE-INSPECTION (FUI) ARMS COMPLAINT NO:

AIRS ID#: 1110072	DATE: <u>11/23/2010</u>	ARRIVE: <u>1:00 PM</u>	DEPART: <u>3:00 PM</u>
FACILITY NAME: FL ROCK IND/FORT PIERCE MINE			
FACILITY LOCATION: 12525 RANGE LINE ROAD PORT ST. LUCIE 34987			
OWNER/AUTHORIZED REPRESENTATIVE: JAMES OBERRY		PHONE: (904)355-1781	
Email:		Mobile:	
CONTACT NAME: Stacy Kellerman		PHONE: (561)461-8052	
Email: kellersmans@vmcmail.com		Mobile: (772)519-2989	
ENTITLEMENT PERIOD: 6/2/2006 / 6/2/2011 (effective date) (end date)			

Facility Section

PART I: INSPECTION COMPLIANCE STATUS (check only one box)

IN COMPLIANCE MINOR Non-COMPLIANCE SIGNIFICANT Non-COMPLIANCE

PART II: ONSITE INTRODUCTORY MEETING (check only one box for each question)

1. Name(s) of facility representative(s): Stacey Kellerman

Brief Notes: Plant Manager

2. Is the Authorized Representative still JAMES OBERRY? ----- Yes ..No
 If no, who is?: _____

 If different, did the facility provide an administrative update within 30 days? ----- Yes ..No

3. Is the facility contact still KENNETH SMITH? ----- Yes ..No
 If no, who is?: Stacey Kellerman

4. Will facility be conducting VE test(s) during today's inspection? ----- Yes ..No
 If yes, was the compliance authority notified at least 15 days in advance? ----- Yes ..No

Emissions Unit Section
5 –Grasan Crusher - CR1H31301 and Associated Equip.

(check only one
box for each question)

Is the Emissions Unit (EU) subject to 40 CFR part 60 subpart OOO – Nonmetallic Mineral Processing Plants?

{Note: “Nonmetallic mineral” means any of the following minerals or any mixture of which the majority is any of the following minerals: (1) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell; (2) Sand and Gravel; (3) Clay including Kaolin, Fireclay, Bentonite, Fuller’s Earth, Ball Clay, and Common Clay; (4) Rock Salt; (5) Gypsum (natural or synthetic); (6) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate; (7) Pumice; (8) Gilsonite; (9) Talc and Pyrophyllite; (10) Boron, including Borax, Kernite, and Colemanite; (11) Barite; (12) Fluorospar; (13) Feldspar; (14) Diatomite; (15) Perlite; (16) Vermiculite; (17) Mica; (18) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.}

1. Is the EU located at a fixed or portable nonmetallic mineral processing plant or hot mix asphalt plant that has an aboveground crusher or grinding mill? ----- Yes ..No
2. Is the EU located above ground (i.e., not in an underground mine)? ----- Yes ..No
3. Was the EU constructed, modified, or reconstructed after August 31, 1983? ----- Yes ..No
4. Is the EU one of the following? ----- Yes ..No
 - crusher, grinding mill, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck loading station enclosed railcar loading station;
 - crusher or grinding mill at hot mix asphalt plant that reduces the size of nonmetallic minerals embedded in recycled asphalt pavement or subsequent emissions unit up to, but not including, the first storage silo or bin;
 - screening operation (a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces. Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.)
 - building enclosing any of the above EUs if all enclosed EUs are not individually in compliance with emissions limits. *{A “vent” is any opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter (PM) emissions from one or more affected EUs.}*

If answer to any of the four Questions 1 -4 above is “No” then the EU is not subject to subpart OOO so skip the following questions and go directly to Question 24.

If the answer to all of the four Questions 1-4 above is “Yes” then continue to Question 5.

5. Is the EU subject to 40 CFR part 60 subpart F (Portland Cement Plants) or subpart I (Hot Mix Asphalt Facilities), or does it follow in the plant process any other EU that is subject to 40 CFR part 60 subpart F or subpart I? ----- Yes ..No
6. Is the EU located at a fixed sand and gravel plant or crushed stone plant with a capacity less than or equal to 23 megagrams/hour (25 tons/hour)? ----- Yes ..No
7. Is the EU located at a portable sand and gravel plant or crushed stone plant with a capacity less than or equal to 136 megagrams/hour (150 tons/hour) ? ----- Yes ..No
8. Is the EU located at a common clay plant or pumice plant with capacity less than or equal to 9 megagrams/hour (10 tons/hour) ? ----- Yes ..No

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9. Is the EU a wet screening operation or subsequent screening operation, bucket elevator or belt conveyor in a production line that processes saturated material up to the first crusher, grinding mill or storage bin in the production line? ----- Yes ..No
{Note: "wet screening operation" means a screening operation which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water. "Saturated material" means mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.}

10. Is the EU a screening operation, bucket elevator or belt conveyor in the production line downstream of wet mining operation that process saturated material up to the first crusher, grinding mill or storage bin in the production line? ----- Yes ..No
{Note: Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water. "Saturated material" means mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.}

**If answer to any of the six Questions 5 -10 above is "Yes" then the EU is not subject to subpart 000 so skip the following questions and go directly to Question 24.
 If the answer to all of the six Questions 5-10 above is "No" then continue to Question 11.**

11. When was the EU last constructed, modified, or reconstructed? 11/12/1998

12. Was the EU constructed, modified, or reconstructed on or after 4/22/2008? ----- Yes ..No

If answer to Question 12 is "No" skip the following questions and go directly to Question 20

13. Does the EU have a particulate matter capture system (equipment including enclosures, Hoods, fans, dampers, etc.) to capture and transport particulate matter to a control device? ----- Yes ..No

If answer to Question 13 is "No" skip the following questions and go directly to Question 19

14. Initial Tests:

- a. Was an initial PM stack test performed on the control device within 180 days of initial startup of the EU? ----- N/A Yes No
- b. If yes, was the EU found to be in compliance with the PM limit of 0.032 g/dscm (0.014 gr/dscf)? --- Yes ..No
- c. Was an initial VE test performed on any fugitive emissions (escaping capture system)? ----- Yes ..No
- d. If yes, was the opacity less than or equal to 7% opacity? ----- Yes ..No

15. If the EU is a building enclosing any other regulated EUs and all enclosed EUs are not individually in compliance with emissions limits:

- a. Was an initial PM stack test performed on each vent control device within 180 days of initial startup of the EU? ----- N/A Yes No
{A "vent" is any opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter (PM) emissions from one or more affected EUs.}
- b. If yes, was the EU found to be in compliance with the PM limit of 0.032 g/dscm (0.014 gr/dscf)? --- Yes ..No
- c. Was an initial VE test performed on fugitive emissions from non-vent building openings? ----- Yes ..No
- d. Were initial fugitive emissions from non-vent building openings less than or equal to 7% opacity? -- Yes ..No

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16. Is a baghouse used to control emissions from the EU? ----- Yes ..No
 If yes, the owner operator: conducts quarterly 30-minute VE tests using Method 22;
 uses a bag leak detection system specified in 40 CFR 60.674(d);
 follows the requirements of 40 CFR 63AAAAA Lime Manufacturing as specified in 40 CFR 60.674(e); or
 none of the above (i.e., out of compliance)

17. If the EU is an individual, enclosed storage bin controlled by a baghouse,
 were initial fugitive emissions less than or equal to 7% opacity? ----- N/A Yes No

18. Is a wet scrubber used to control emissions from the EU? ----- Yes ..No
 If yes, does the owner/operator maintain and operate:
 a. a device for the continuous measurement of the pressure loss of the gas stream through the scrubber and the device has been calibrated on an annual basis in accordance with manufacturer's instructions? ----- Yes ..No
 {Note: The monitoring device must be certified by the manufacturer to be accurate within +250 pascals +1 inch water gauge pressure.}
and
 b. a device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber and the device has been calibrated on an annual basis in accordance with manufacturer's instructions? -- Yes ..No
 {Note: The monitoring device must be certified by the manufacturer to be accurate within +5% of design scrubbing liquid flow rate.}

19. Is wet suppression used to control emissions from the EU? ----- Yes ..No
 If yes:
 a. Does the owner/operator perform monthly inspections to check that water is flowing to the discharge spray nozzles?
 b. Does the owner/operator initiate corrective action within 24 hours and complete corrective action as expeditiously as practical is water is not flowing properly?
 c. Is each inspection of the spray nozzles, including the date and any corrective action taken, recorded in the written or electronic logbook as required by 40 CFR 60.676(b)? ----- Yes ..No

If the EU was constructed, modified, or reconstructed on or after 4/22/2008 skip the following questions and go directly to Question 24.

20. Does the EU have a particulate matter capture system (equipment including enclosures, Hoods, fans, dampers, etc.) to capture and transport particulate matter to a control device? ----- Yes ..No

21. Initial Tests:
 a. Was an initial PM stack test performed on the control device within 180 days of initial startup of the EU? ----- N/A Yes No
 b. If yes, was the EU found to be in compliance with the PM limit of 0.05 g/dscm (0.022 gr/dscf)? --- Yes ..No
 c. Was an initial VE test performed on any fugitive emissions (escaping capture system)? ----- Yes ..No
 d. If yes, was the opacity less than or equal to 7% opacity? ----- Yes ..No

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- 22. If the EU is a building enclosing any other regulated EUs and all enclosed EUs are not individually in compliance with emissions limits:**
- a. Was an initial PM stack test performed on each vent control device within 180 days of initial startup of the EU? ----- N/A Yes No
{A "vent" is any opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter (PM) emissions from one or more affected EUs.}
- b. Was the EU found to be in compliance with the PM limit of 0.05 g/dscm (0.022 gr/dscf)? ----- Yes ..No
- c. Were initial fugitive emissions from non-vent building openings less than or equal to 7% opacity?-- Yes ..No
- 23. Is a wet scrubber used to control emissions from the EU?** ----- Yes ..No
- If yes, does the owner/operator maintain and operate:
- a. a device for the continuous measurement of the pressure loss of the gas stream through the scrubber and the device has been calibrated on an annual basis in accordance with manufacturer's instructions? ----- Yes ..No
 {Note: The monitoring device must be certified by the manufacturer to be accurate within +250 pascals +1 inch water gauge pressure.}
- and*
- b. a device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber and the device has been calibrated on an annual basis in accordance with manufacturer's instructions? -- Yes ..No
 {Note: The monitoring device must be certified by the manufacturer to be accurate within +5% of design scrubbing liquid flow rate.}
- 24. When was the last VE test conducted by the owner/operator for this EU?** 12/15/2009
- a. If EU is not subject to 40 CFR 60 subpart OOO, has the EU been tested within the past 5 years? --- Yes ..No
- b. If EU is subject to 40 CFR subpart OOO:
- i. has the EU been tested during each of the past 4 calendar years? ----- Yes ..No
- ii. has the EU been tested yet within the current calendar year? ----- Yes ..No
- 25. Was a VE test conducted by the owner/operator for this unit during this site visit?** ----- Yes ..No
- a. Was the VE test conducted at a process rate that is representative of the normal rate? ----- Yes ..No
 Rate: 400 T/hr
- b. Was the VE test conducted according to EPA Method 9? ----- Yes ..No
- c. The VE test resulted in an opacity of _____% for the highest six-minute average.
- d. Did the VE test demonstrate compliance with the opacity limit? (See chart below). ----- Yes ..No
- 26. Was a VE test conducted by the inspector for this unit during this site visit?** ----- Yes ..No
- a. Was the VE test conducted at a process rate that is representative of the normal rate? ----- Yes ..No
 Rate: 400 T/hr
- b. Was the VE test conducted according to EPA Method 9? ----- Yes ..No
- c. The VE test resulted in an opacity of 0% for the highest six-minute average.
- d. Did the VE test demonstrate compliance with the opacity limit? (See chart below). ----- Yes ..No

<i>VE Opacity Limits</i>			
	EU not subject to 40 CFR 60 Subpart OOO	Subpart OOO EU constructed, modified, or reconstructed prior to 4/22/2008	Subpart OOO EU constructed, modified, or reconstructed on or after 4/22/2008
Crusher with no capture system	20%	15%	12%
All other affected EUs	20%	10%	7%

Facility Section (continued)

REASONABLE PRECAUTIONS FOR UNCONFINED EMISSIONS

(check only one
box for each question)

- 1.** Does the owner/operator of the NMMP Plant take reasonable precautions to control unconfined emissions by:
- a) Use of water suppression system(s) with spray bars located wherever unconfined emissions occur (at the feeder(s), the entrance and exit of the crusher(s), the classifier screens, and the conveyor drop points)? ----- N/A Yes No
 If no, where are unconfined emissions occurring? _____
- b) Use of water trucks equipped with spray bars to apply water or effective dust suppressant(s) on a regular basis (to all stockpiles, roadways and work yards)? ----- N/A Yes No
- c) Paving and maintaining roads and parking areas? ----- N/A Yes No
- d) Removal of particulate matter from roads and other paved areas under control of the owner/operator to prevent re-entrainment, and from building or work areas to reduce airborne particulate matter? ----- N/A Yes No
- e) Reduction of stock pile height, or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles? ----- N/A Yes No
- 2.** If reasonable precautions not being taken:
- a) Did the inspector perform a general VE test (20% opacity)? ----- N/A Yes No
- b) If tested: (_____)% opacity. Were the visible emissions < 20% opacity? ----- Yes No
- c) What caused the problem(s) (if known)? _____

CONFIRMATION OF GENERAL PERMIT ELIGIBILITY

(check only one
box for each question)

- 1.** Does this facility keep records to show that it does not have the potential to emit:
- a) 10 tons per year or more of any hazardous air pollutant? ----- Yes No
- b) 25 tons per year or more of any combination of hazardous air pollutants? ----- Yes No
- c) 100 tons per year or more of any other regulated air pollutant? ----- Yes No
- 2.** Does this facility include:
- a) any emission units or activities not covered by the applicable air general permit (with the exception of units and activities that are exempt from permitting pursuant to subsection Rule 62-210.300(3) or Rule 62-4.040, F.A.C.)? ----- Yes No
 If YES, what non-exempt units or activities? _____
- b) any emissions units or activities authorized by another air general permit where such other air general permit and this general permit specifically allow the use of one another at the same facility? ----- Yes No
 If YES, what other general permit units or activities? _____

3. Is the total combined annual facility-wide fuel usage of all plants less than or equal to:
- a) 275,000 gallons of diesel fuel? ----- Yes ..No
 - b) 23,000 gallons of gasoline? ----- Yes ..No
 - c) 44 million standard cubic feet on natural gas? ----- Yes ..No
 - d) 1.3 million gallons of propane? ----- Yes ..No
 - e) or an equivalent prorated amount if multiple fuels are used onsite (use equation below)? ----- Yes ..No

$$\frac{(\quad)\text{ gal diesel/yr}}{275,000\text{ gal diesel/yr}} + \frac{(\quad)\text{ gal gasoline/yr}}{23,000\text{ gal gasoline/yr}} + \frac{(\quad)\text{ MM SCF nat. gas/yr}}{44\text{ MM SCF nat. gas/yr}} + \frac{(\quad)\text{ MM gal propane/yr}}{1.3\text{ MM gal propane/yr}} \leq 1.00?$$

4. Has the owner/operator maintained, available for inspection, site-wide records of monthly fuel consumption for each consecutive 12-period for the past 5 years? ----- Yes ..No

GENERAL CONDITIONS

(check only one box for each question)

- 1. Has the owner or operator allowed the circumvention of any air pollution control device, or Allowed the emission of air pollutants without the proper operation of all applicable air pollution control devices? ----- Yes ..No
- 2. Does the owner or operator:
 - a) maintain the authorized facility in good condition? ----- Yes ..No
 - b) ensure that the facility maintains its eligibility to use the air general permit and complies with all terms and conditions of the air general permit? ----- Yes ..No
- 3. Has the owner or operator allowed you, as the duly authorized representative of the Department, access to the facility at reasonable times to inspect and test and to determine compliance with the air general permit and Department rules? ----- Yes ..No

RELOCATABLE PLANT

(check only one box for each question)

- 1. The facility: is stationary; is relocatable; or consists of both stationary and relocatable NMMP and/or concrete batching plants. (*If only stationary, skip the following questions 2 and 3.*)
- 2. For a relocated NMMP plant:
 - a) did the owner or operator notify the appropriate Department or Local Air Program by telephone, e-mail, fax, or written communication at least one business day prior to changing location? ----- Yes ..No
 - b) did the owner or operator transmit a Facility Relocation Notification Form [DEP No. 62-210.900(6)] to the Department or Local Air Program no later than five business days following relocation? -- Yes ..No
- 3. If the relocatable NMMP plant was co-located at a facility with a separate air construction or air operation permit, and the relocatable NMMP plant is not included as an emissions unit in that separate permit:
 - a) was the relocatable NMMP plant being used for a non-routine purpose? ----- Yes ..No
 If YES, what was the purpose?
 {Note: crushing recycled asphalt pavement (rap) at an asphalt plant is considered routine and so therefore must be authorized in the facility's air construction or operation permit.}
 - b) were records kept by the owner/operator to indicate how long it was co-located at the permitted facility? ----- Yes ..No
 If YES, were any periods more than 6 months in any consecutive 12-month period? ----- Yes ..No

CHANGES

(check only one box for each question)

Administrative Changes:

- 1. Were there any changes in the name, address, or phone number of the facility or authorized representative not associated with a change in ownership or with a physical relocation of the facility or any emissions units or operations comprising the facility; or any other similar minor administrative change at the facility? -- Yes ..No
- 2. If YES, did the facility provide written notification within 30 days of the change? ----- Yes ..No

New or Modified Process Equipment or Change in Ownership:

- 3. Since the last registration form submittal has there been
 - a) Installation of any new process equipment? ----- Yes ..No
 - b) Alterations to existing process equipment without replacement? ----- Yes ..No
 - c) Replacement of existing equipment with equipment that is substantially different? ----- Yes ..No
 - d) A change in ownership? ----- Yes ..No
- 4. If the answer to any question 3a. – d. is YES, was a new registration form and the appropriate fee submitted 30 days prior to the change? ----- Yes ..No

Michelle Robinson-Austin

11/23/2010

Inspector's Name (Please Print)

Date of Inspection

11/23/2011

Inspector's Signature

Approximate Date of Next Inspection

COMMENTS: Inspection Participants:

Michelle Robinson, FDEP Principal Inspector
Lee Hoefert, FDEP Inspector

Stacy Kellerman: FL Rock Quarry, Plant Manager
Nicholas Simmons: Koogler Associates, Technician

Vulcan Materials is a producer of construction aggregates such as crushed stone, sand, and gravel. Florida Rock Quarry a subdivision of Vulcan Materials located in Port St. Lucie generates Coquina, Fill Dirt, and Rip rap. The facility has one active emissions unit a Grasan Crusher. The Grasan Crusher is not equipped with environmental control equipment. According to the Plant Manager Stacy Kellerman, the Cedar Rapids crusher listed in ARMS as active was sold for scrap metal several years ago.

A visible emissions test was conducted by Nicholas Simmons of Koogler Associates. During the testing fugitive emissions at or below 5% were observed. The process rate at the time of testing was 400 tons per hour.

The facility does not use water trucks, spray bars, or use dust suppressants to control unconfined emissions. The plant manager stated these precautions are omitted because the process material is "dug wet and mined below the surface level". The process material used during the testing did not meet the definition of saturated as defined in 40 CFR 60 Subpart OOO. However, no unconfined emissions were observed during the inspection.

The plant manager was reminded of its upcoming permit expiration in June and given permit renewal information.