# CONCRETE BATCHING PLANT

## COMPLIANCE INSPECTION CHECKLIST

Environmental Compliance

**INSPECTION TYPE:** ANNUAL (INS1, INS2) ☒ COMPLAINT/DISCOVERY (CI) ☐

RE-INSPECTION (FUI) ☐ ARMS COMPLAINT NO:

**AIRS ID#:** 0950024 **DATE:** **4/18/2013** **ARRIVE:** **8:30** **DEPART:** **11:30**

**FACILITY NAME:** FLORIDA ROCK/CARDER ROAD PLANT

**FACILITY LOCATION:** 5109 CARDER RD

ORLANDO 32810-5111

**OWNER/AUTHORIZED REPRESENTATIVE:** LORI SANVILLE **PHONE:**
**Email:** **Mobile:**
**CONTACT NAME:** KATHERINE CHUMLEY **PHONE:** (904)380-0130
**Email:** chumleyk@vmcmail.com **Mobile:**
**ENTITLEMENT PERIOD:** /
(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): Rodney Rawlins

   Brief Notes: 407-253-3069 office.

2. Is the Authorized Representative still LORI SANVILLE? ---------- ☒ 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 KATHERINE CHUMLEY? ---------- ☒ Yes ☐..No
   If no, who is?: _____

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

**2 –Cement Silo w/ Baghouse subject to 5% Opacity Limit**

**PART I: FILE REVIEW PRIOR TO INSPECTION** (check ☑ only one box for each question)

1. Date of last inspection: 7/12/2012
2. Past Visible Emissions (VE) tests:
   a. Was a VE test performed within each of the past 4 calendar years? ☒ Yes ☐ No
   b. Has a VE test been performed yet within the current calendar year? ☐ Yes ☒ No
   c. If first year of operation, was a VE test performed within 30 days of commencing operation? ☒ N/A ☐ Yes ☐ No
   d. Date of last VE test: 7/12/2012
   e. Was the VE test report filed with the compliance authority no later than 45 days after the test? ☒ Yes ☐ No
   f. Did the report state the actual silo loading rate during emissions testing? ☒ Yes ☐ No
   g. What was the actual silo loading rate? 26.64 tons/hour
   h. If weigh hopper(batcher) emissions controlled by the silo dust collector, did the report state whether or not batching occurred during emissions testing? ☒ N/A ☐ Yes ☐ No
   i. Did the test report state the actual batching rate during emissions testing? ☐ Yes ☒ No
   j. What was the actual batching rate? _____ tons/hour
   k. Did the emissions unit demonstrate compliance with the 5% opacity limit during the last VE test? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

**PART II: STACK EMISSIONS from a silo, weigh hopper(batcher) or other enclosed storage and conveying equipment** (check ☑ only one box for each question)

**1. Was a visible emissions test conducted by the facility for this unit during this site visit?** ☒ Yes ☐ No

   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

   d. During visible emissions tests of the silo dust collector exhaust points was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☒ Yes ☐ No ☐ N/A – silo not loaded during inspection.
   e. If silo loaded, was the minimum loading rate of 25 tons/hour achievable in practice? ☐ Yes ☒ No
   f. What was the silo loading rate? 21.89 tons/hour
   g. Are emissions from the weigh hopper (batcher) operation controlled by the silo dust collector? ☐ Yes ☒ No
   *If YES, then continue on to questions g.1) – g.3) below. If answer NO, then skip g.1) – g.3) and go to h.*
      1) Was the weigh hopper (batcher) in operation during the visible emissions test? ☐ Yes ☐ No
      2) During the visible emissions test, was the batching rate representative of the normal batching rate and duration? ☐ Yes ☐ No
      3) What was the batching rate? _____ tons/hour . What was the batching duration? _____ minutes
   h. 1) If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, was the visible emissions test of the weigh hopper (batcher) dust collector conducted while batching at a rate that is representative of the normal batching rate and duration? ☒ Yes ☐ No
      2) What was the batching rate? _____ tons/hour. What was the batching duration? 6 minutes.

2. **Was a visible emissions test conducted by the inspector for this unit during this site visit?** ☒ Yes ☐ No
   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   d. What was the process rate? 21.89 tons/hour.

## Emissions Unit Section

**4 –Slag Silo w/ Baghouse subject to 5% Opacity Limit**

**PART I: FILE REVIEW PRIOR TO INSPECTION** (check ☑ only one box for each question)

1. Date of last inspection: 7/12/2012
2. Past Visible Emissions (VE) tests:
   a. Was a VE test performed within each of the past 4 calendar years? ☒ Yes ☐ No
   b. Has a VE test been performed yet within the current calendar year? ☐ Yes ☒ No
   c. If first year of operation, was a VE test performed within 30 days of commencing operation? ☒ N/A ☐ Yes ☐ No
   d. Date of last VE test: 7/12/2012
   e. Was the VE test report filed with the compliance authority no later than 45 days after the test? ☒ Yes ☐ No
   f. Did the report state the actual silo loading rate during emissions testing? ☒ Yes ☐ No
   g. What was the actual silo loading rate? 30.96 tons/hour
   h. If weigh hopper(batcher) emissions controlled by the silo dust collector, did the report state whether or not batching occurred during emissions testing? ☒ N/A ☐ Yes ☐ No
   i. Did the test report state the actual batching rate during emissions testing? ☒ Yes ☐ No
   j. What was the actual batching rate? _____ tons/hour
   k. Did the emissions unit demonstrate compliance with the 5% opacity limit during the last VE test? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

**PART II: STACK EMISSIONS from a silo, weigh hopper(batcher) or other enclosed storage and conveying equipment** (check ☑ only one box for each question)

**1. Was a visible emissions test conducted by the facility for this unit during this site visit?** ☒ Yes ☐ No

   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

   d. During visible emissions tests of the silo dust collector exhaust points was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☒ Yes ☐ No ☐ N/A – silo not loaded during inspection.
   e. If silo loaded, was the minimum loading rate of 25 tons/hour achievable in practice? ☒ Yes ☐ No
   f. What was the silo loading rate? 31.43 tons/hour
   g. Are emissions from the weigh hopper (batcher) operation controlled by the silo dust collector? ☐ Yes ☒ No
   *If YES, then continue on to questions g.1) – g.3) below. If answer NO, then skip g.1) – g.3) and go to h.*
      1) Was the weigh hopper (batcher) in operation during the visible emissions test? ☐ Yes ☐ No
      2) During the visible emissions test, was the batching rate representative of the normal batching rate and duration? ☐ Yes ☐ No
      3) What was the batching rate? _____ tons/hour . What was the batching duration? _____ minutes
   h. 1) If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, was the visible emissions test of the weigh hopper (batcher) dust collector conducted while batching at a rate that is representative of the normal batching rate and duration? ☒ Yes ☐ No
      2) What was the batching rate? _____ tons/hour. What was the batching duration? 6 minutes.

2. **Was a visible emissions test conducted by the inspector for this unit during this site visit?** ☒ Yes ☐ No
   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   d. What was the process rate? 31.43 tons/hour.

## Emissions Unit Section

**5 –Fly Ash Silo w/ Baghouse subject to 5% Opacity Limit**

**PART I: FILE REVIEW PRIOR TO INSPECTION** (check ☑ only one box for each question)

1. Date of last inspection: 7/12/2012
2. Past Visible Emissions (VE) tests:
   a. Was a VE test performed within each of the past 4 calendar years? ☒ Yes ☐ No
   b. Has a VE test been performed yet within the current calendar year? ☐ Yes ☒ No
   c. If first year of operation, was a VE test performed within 30 days of commencing operation? ☒ N/A ☐ Yes ☐ No
   d. Date of last VE test: 7/12/2012
   e. Was the VE test report filed with the compliance authority no later than 45 days after the test? ☒ Yes ☐ No
   f. Did the report state the actual silo loading rate during emissions testing? ☒ Yes ☐ No
   g. What was the actual silo loading rate? 30.96 tons/hour
   h. If weigh hopper(batcher) emissions controlled by the silo dust collector, did the report state whether or not batching occurred during emissions testing? ☒ N/A ☐ Yes ☐ No
   i. Did the test report state the actual batching rate during emissions testing? ☒ Yes ☐ No
   j. What was the actual batching rate? _____ tons/hour
   k. Did the emissions unit demonstrate compliance with the 5% opacity limit during the last VE test? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

**PART II: STACK EMISSIONS from a silo, weigh hopper(batcher) or other enclosed storage and conveying equipment** (check ☑ only one box for each question)

1. **Was a visible emissions test conducted by the facility for this unit during this site visit?** ☒ Yes ☐ No
   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____
   d. During visible emissions tests of the silo dust collector exhaust points was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☒ Yes ☐ No ☐ N/A – silo not loaded during inspection.
   e. If silo loaded, was the minimum loading rate of 25 tons/hour achievable in practice? ☒ Yes ☐ No
   f. What was the silo loading rate? 28.77 tons/hour
   g. Are emissions from the weigh hopper (batcher) operation controlled by the silo dust collector? ☐ Yes ☒ No
   *If YES, then continue on to questions g.1) – g.3) below. If answer NO, then skip g.1) – g.3) and go to h.*
      1) Was the weigh hopper (batcher) in operation during the visible emissions test? ☐ Yes ☐ No
      2) During the visible emissions test, was the batching rate representative of the normal batching rate and duration? ☐ Yes ☐ No
      3) What was the batching rate? _____ tons/hour . What was the batching duration? _____ minutes
   h. 1) If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, was the visible emissions test of the weigh hopper (batcher) dust collector conducted while batching at a rate that is representative of the normal batching rate and duration? ☒ Yes ☐ No
      2) What was the batching rate? _____ tons/hour. What was the batching duration? 6 minutes.
2. **Was a visible emissions test conducted by the inspector for this unit during this site visit?** ☒ Yes ☐ No
   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   d. What was the process rate? 28.77 tons/hour.

## Emissions Unit Section

**6 –Weigh Hopper w/ Baghouse subject to 5% Opacity Limit**

**PART I: FILE REVIEW PRIOR TO INSPECTION** (check ☑ only one box for each question)

1. Date of last inspection: 7/12/2012
2. Past Visible Emissions (VE) tests:
   a. Was a VE test performed within each of the past 4 calendar years? ☒ Yes ☐ No
   b. Has a VE test been performed yet within the current calendar year? ☐ Yes ☒ No
   c. If first year of operation, was a VE test performed within 30 days of commencing operation? ☒ N/A ☐ Yes ☐ No
   d. Date of last VE test: 7/12/2012
   e. Was the VE test report filed with the compliance authority no later than 45 days after the test? ☒ Yes ☐ No
   f. Did the report state the actual silo loading rate during emissions testing? ☒ Yes ☐ No
   g. What was the actual silo loading rate? _____ tons/hour
   h. If weigh hopper(batcher) emissions controlled by the silo dust collector, did the report state whether or not batching occurred during emissions testing? ☒ N/A ☐ Yes ☐ No
   i. Did the test report state the actual batching rate during emissions testing? ☒ Yes ☐ No
   j. What was the actual batching rate? _____ tons/hour
   k. Did the emissions unit demonstrate compliance with the 5% opacity limit during the last VE test? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

**PART II: STACK EMISSIONS from a silo, weigh hopper(batcher) or other enclosed storage and conveying equipment** (check ☑ only one box for each question)

**1. Was a visible emissions test conducted by the facility for this unit during this site visit?** ☒ Yes ☐ No

   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   If not, what was the problem (if known)? _____

   d. During visible emissions tests of the silo dust collector exhaust points was the loading of the silo conducted at a rate that is representative of the normal silo loading rate? ☒ Yes ☐ No ☐ N/A – silo not loaded during inspection.
   e. If silo loaded, was the minimum loading rate of 25 tons/hour achievable in practice? ☒ Yes ☐ No
   f. What was the silo loading rate? _____ tons/hour
   g. Are emissions from the weigh hopper (batcher) operation controlled by the silo dust collector? ☐ Yes ☒ No
   *If YES, then continue on to questions g.1) – g.3) below. If answer NO, then skip g.1) – g.3) and go to h.*
      1) Was the weigh hopper (batcher) in operation during the visible emissions test? ☐ Yes ☐ No
      2) During the visible emissions test, was the batching rate representative of the normal batching rate and duration? ☐ Yes ☐ No
      3) What was the batching rate? _____ tons/hour . What was the batching duration? _____ minutes
   h. 1) If emissions from the weigh hopper (batcher) operation are controlled by a dust collector which is separate from the silo dust collector, was the visible emissions test of the weigh hopper (batcher) dust collector conducted while batching at a rate that is representative of the normal batching rate and duration? ☒ Yes ☐ No
      2) What was the batching rate? _____ tons/hour. What was the batching duration? 6 minutes.

2. **Was a visible emissions test conducted by the inspector for this unit during this site visit?** ☒ Yes ☐ No
   a. Was the visible emissions test conducted according to EPA Method 9? ☒ Yes ☐ No
   b. The visible emission test resulted in an opacity of 0.0 % for the highest six-minute average.
   c. Did the visible emissions test demonstrate compliance with the 5% opacity limit? ☒ Yes ☐ No
   d. What was the process rate? _____ tons/hour.

## Emissions Unit Section

**7 –Truck Load Out w/ Central Dust Collector subject to Reasonable Precautions**

**PART I: FILE REVIEW PRIOR TO INSPECTION**

(check ☑ only one box for each question)

1. Date of last inspection: 7/12/2012
2. Did the emissions unit use reasonable precautions during the last inspection? ---------- ☒ Yes ☐ No
   If not: a. Did the inspector perform a general VE test (20% opacity)? ---------- ☒ Yes ☐ No
   b. If tested: (0.0)% opacity. Were the visible emissions < 20% opacity? ------- ☐ N/A ☒ Yes ☐ No
   c. What caused the problem(s) (if known)? _____

**PART II: FIELD OBSERVATIONS – Rule 62-296.414(2), F.A.C.**

(check ☑ only one box for each question)

**Unconfined Emissions from Truck Loading and Unloading, Hoppers, Storage and Conveying Equipment, Conveyor Drop Points, Roads, Parking Areas, Stock Piles, and Yards**

1. Does the owner/operator of the concrete batching plant take reasonable precautions to control unconfined emissions by:

   a. Management of roads, parking areas, stock piles, and yards, which shall include one or more of the following:
      1) paving and maintenance of roads, parking areas, stock piles, and yards? ---------- ☒ Yes ☐ No
      2) application of water or environmentally safe dust-suppressant chemicals when necessary to control emissions? ---------- ☒ Yes ☐ No
      3) removal of particulate matter from roads and other paved areas under control of the owner/operator to re-entrainment, and from building or work areas to reduce airborne particulate matter? ---------- ☒ Yes ☐ No
      4) reduction of stock pile height, or installation of wind breaks to mitigate wind entrainment of particulate matter from stock piles? ---------- ☐ Yes ☒ No

   b. Use of spray bar, chute, or partial enclosure to mitigate emissions at the drop point to the truck? ---- ☒ Yes ☐ No

2. If reasonable precautions not being taken:
   a. Did the inspector perform a general VE test (20% opacity)? ---------- ☐ Yes ☐ No
   b. If tested: (_____)% opacity. Were the visible emissions < 20% opacity? ---------- ☐ Yes ☐ No
   c. What caused the problem(s) (if known)? _____

## Facility Section (continued)

**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

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

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. Is the facility: stationary ☒; relocatable ☐; or consisting of both stationary and relocatable ☐ concrete batching and/or nonmetallic mineral processing plants? (***If only stationary, skip the following question 2.)***

2. Is the relocatable concrete batching plant used to mix cement and soil for onsite soil augmentation or stabilization? ---------- ☐ Yes ☐ No

***(If YES, answer 2. a and 2 .b; if NO, answer question 2.c below. )***

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 a relocation? ---- ☐ Yes ☐ No

c. Did the owner or operator transmit a Facility Relocation Notification Form [DEP No. 62-210.900(6)] to the appropriate Department or Local Air Program at least five business days prior to relocation? --- ☐ Yes ☐ No

3. If the relocatable plant was co-located at a facility with a separate air construction or air operation permit, and the relocatable batch plant is not included as an emissions unit in that separate permit:

a. Was the relocatable batch plant being used for a non-routine purpose (i.e, there is no repeated usage)? ☐ Yes ☐ No
If YES, what was the purpose?

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 duration? ---------- ☐ 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

assefa hailemariam — Inspector's Name (Please Print)

4/18/2013 — Date of Inspection

Inspector's Signature

12/31/2014. — Approximate Date of Next Inspection

**COMMENTS:** Assefa Hailemariam from Orange County EPD met Kathie Chumley and Rodney Rawlins from Florida Rock Company, at the concrete batch and block plant at 5109 Carder Road, Orlando Florida. Four VES silo and trucks load out silo were conducted on this date. All the loading rates were acceptable ( flyash 28.77tons/hr, cement 21.89 tons/hr this is not acceptable since they stated they will retest., slag 31.43 tons/hr), and weigh hopper normal tons/hr and observed opacity was zero percent for all emission units. No uncontrolled emissions and no objectionable odors were noted. EU002, Cement silo facilty will re test due to it didn't meet the minimum loading rate of 25 tons/hour.