

Attachment B: Comments and Responses on DRAFT Permit

On June 19, 2012, EPC staff received the comments from Mr. Marvin Scott with EEC regarding the DRAFT Renewal Permit No. 0570230-005-AO. The following are the re-stated comments in *Italic* font provided by EEC:

General Comments:

- 1.) With total plantwide PM emissions below fifteen tons per year we feel we are exempt from PM RACT.*
- 2.) Also, we would like to request that VE tests conducted on openings (building opening on north side and railcar unloading area) for fugitive emissions use 10% opacity standard, as per Federal Regulations 40CFR Part 60, subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants, Table 3 to Subpart OOO – Fugitive Emissions Limits. (See Attachment 1)*
- 3.) We would like to request an amendment to the permit language to exempt an emission unit, which is a new brick tumbler. The brick tumbler is a 24” pipe approximately 10 feet in length and is set up such that new bricks are fed in one end and as the pipe rotates the bricks are tumbled against each other and now have a more aged or rugged appearance to meet customer demand. Extremely low emissions from this unit.*
- 4.) We would also like to request that the visible emission testing schedule be required within the federal fiscal year of October 1st to September 30 of the following year.*
- 5.) Kiln #2 process rate: change from 2400 lbs/hr to 1904 lbs/hr. (This is necessary because this is the rate that will be reported while doing V.E. test.)*
- 6.) Kiln #1 and Kiln#2 hours of operation: change from 8760 hrs/yr to 8592 hrs./yr (This more accurately states hours of operation since the kilns are shut down the last week of the year for maintenance purposes.)*
- 7.) Baghouse process rate changed from 1.6 tons/hr to 2.79 tons/yr. (This rate is calculated using the total throughput through Kiln#2 divided by the number of hours the baghouse operates, see attached calculations.)*

Comments by specific condition:

- 1. Page 3 of 6, condition #6. Instead of saying “the exhaust from the hammer mill and disc mill operation (EU 003),” why not just say the “baghouse exhaust”.*
- 2. Page 4 of 6, condition #7. The hammer and disc mills are rated at 1.6 TPH, however, there is no way to measure the weight being fed into the mills, just normal operation.*
- 3. Page 4 of 6, condition A.10. We request that the daily record keeping requirement be changed back to the monthly requirement listed as condition 11 in the existing permit, 004.*
- 4. Page 4 of 6, condition A.10.C. We believe that recording of the production rate is incorrect and should be the hours of operation, since the production rate is essentially constant for the kilns.*
- 5. Page 5 of 6, condition 12.A.2. The correct identification of the baghouse model number is “168 C10”, the letter between the c and the zero is the number one, not the letter I.*
- 6. Page 5 of 6, condition 12.A.3. The efficiency is 99.9%, not 98.5%, per email from manufacturer.*

7. *Page 5 of 6, condition 12.A.5. The correct operating pressure is 0-10", not 0-8" as listed.*
8. *Page 5 of 6, condition 12.A.10. The correct stack height is 8 feet not 20 feet.*
9. *Page 6 of 6, condition, 13.A & B. Add the * after the word equipment as it is in the existing permit (condition 16) and have the * say "Not applicable to routine maintenance, repair, or replacement of component parts".*

On June 27, 2012, EPC staff had a teleconference with EEC and the facility's representatives for discussion of their comments for the permit. As a result of the conference call, EEC and the facility expressed that they would revise their comments and send them to us as soon as possible. On July 25, 2012, EPC received EEC's revised comments dated July 20, 2012 as re-stated in *Italic* font as follows:

General Comments:

- 1.) *We are in agreement that since total plantwide PM emissions fall below fifteen tons per year we are exempt from PM RACT.*
- 2.) *Agreed. We do not wish to be subject to Subpart OOO and we accept the 5% opacity requirement, except for the 10% allowed for the Kilns.*
- 3.) *Agreed. The new rotary brick tumbler machine will be handled as an amendment after this permit has been issued.*
- 4.) *We are requesting monthly logs for specific condition 10.B, 10.C and 12B instead of the proposed daily and weekly logs. Staff will keep and retain daily logs during the operation of the Kilns, but this will not be a specific requirement of the air permit. We believe you tentatively agreed to this request.*
- 5.) *Agreed. We will keep the 8760 hours so that we do not have to keep records of the hours of operation.*
- 6.) *We would like to request that the visible emission testing begin with the new federal fiscal year beginning October 1, 2012 to September 30, 2013 of the following year, since testing for 2012 has already been completed.*
- 7.) *Agreed. We will keep Kiln #2 maximum process rate at 2400 lbs/hr.*

EPC Response to Comments 1.) thru 7.)

EPC agrees with EEC and Florida Brick & Clay on Comments 1) thru 7), with the exception that Specific Condition 12.B) will still require weekly checks of the baghouse performance parameters while in operation. EPC staff believes that monthly baghouse parameter checks are not sufficient to provide reasonable assurance of continuous compliance with the 5% opacity standard.

Facility Comment

- 8.) *We would like to request clarification on the Visible Emission testing as to which pieces of equipment need to operate during each VE test. We recommend that Emission Unit 006 Material Handling be divided into 3 separate emission units, 006A, 006B and 006C. This would help clarify things when discussing these tests and when filing annual operating reports. The breakdown would be as listed on page 2 of 13 in the June 12, 2012 draft from Diana Lee and is repeated below.*

<i>Emission Unit- 006A</i>	<i>Transfer Point Description</i>
<i>Material handling operations associated with the railcar unloading and primary crusher operation</i>	<i>Railcar to conveyor</i>
	<i>Conveyor to crusher</i>
	<i>Crusher to conveyor</i>
	<i>Conveyor to Pile</i>

<i>Emission Unit – 006B</i>	<i>Transfer Point Description</i>
<i>Material handling operations associated with the dry pan grinder and Kiln #1 operation</i>	<i>Frontend loader to hopper</i>
	<i>Hopper to conveyor</i>
	<i>Conveyor to dry pan</i>
	<i>Dry pan to conveyor</i>
	<i>Conveyor to conveyor</i>
	<i>Conveyor to screen</i>
	<i>Screen to belt return conveyor</i>
	<i>Belt return conveyor to conveyor</i>
	<i>Conveyor to reversing conveyor</i>
	<i>Reversing conveyor to tank</i>
	<i>Tank to conveyor</i>
	<i>Conveyor to paddle mixer</i>
	<i>Paddle mixer to conveyor</i>
	<i>Conveyor to extruder</i>

<i>Emission Unit – 006C</i>	<i>Transfer Point Description</i>
<i>Material handling operations associated with Kiln #2 operation</i>	<i>Frontend loader to hopper</i>
	<i>Hopper to conveyor</i>
	<i>Conveyor to disc mill</i>
	<i>Disc mill to conveyor</i>
	<i>Conveyor to movable conveyor</i>
	<i>Movable conveyor to pile</i>
	<i>Loader to kiln feeder</i>
	<i>Feeder to conveyor</i>
	<i>Conveyor to weigh hopper</i>

As far as the tests go, our recommendation would be as follows, and this could be listed under Specific Conditions # 6 of the Permit.

VE tests:

*Test 1: EU003 Hammermill/Discmill with baghouse
(EU006C must be operating during this test in addition to EU003)*

Test 2: Either Kiln #1 EU001 or Kiln #2 EU002

Test 3: Northeast Door (EU003 and EU006C must be operating)

Test 4: Railcar Unloading and North Opening (EU006A and EU006B must be operating)

Note: Tests could be performed simultaneously if visible at the same time by individual performing the tests. For instance, Test 1 and Test 2, or Test 2 and Test 3. We have mutual agreement to work together regarding test notifications. These could be difficult do to the problems associated with railcar scheduling.

EPC Response to Comment No. 8.)

After review, in order to reduce the facility's testing burden and economic hardship, EPC staff agrees to change the testing condition for EU 006 to require that the facility simply test the railcar unloading and the building while the material handling equipment is in operation. In addition, we will only require VE testing on one kiln pear year and the baghouse for the grinding operation. Specific Condition No. 6 will be revised as follows:

CHANGE FROM:

6. In order to demonstrate compliance with the visible emissions standards specified in Specific Condition No. 5, test one kiln (EU 001/002), the exhaust from the hammer mill and disc mill operation (EU 003), the railcar unloading, and the building openings on the north and northeast sides of the brick manufacturing building (EU 006) for visible emissions annually begin with federal fiscal Year 2013 (October 1 – September 30) with a target date of April 19. Testing of the manufacturing building openings shall be conducted during the material handling operations performed on the northeast side of the building and during the simultaneous operation of the primary crusher and the dry pan grinder, which are performed on the north side of the building. The EPA Method 9 test observation period on this source shall be at least thirty (30) minutes and shall be conducted under the same operating conditions as the test specified in Specific Condition No. 7. Two copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County within 45 days of testing. [Rule 62-297.310(7)(a)4., F.A.C.]

CHANGE TO:

6. In order to demonstrate compliance with the visible emissions standards specified in Specific Condition No. 5, test one kiln (EU 001 or 002), the baghouse exhaust from the hammer mill and disc mill operation (EU 003), the railcar unloading operation, and the building (EU 006) for visible emissions annually, once per federal fiscal year (October 1 – September 30) beginning in FFY 2013 with a target date of April 19. The EPA Method 9 test observation period on this source shall be at least thirty (30) minutes in duration and shall be conducted at capacity as defined in Specific Condition No. 7. Two copies of the test data shall be submitted to the Air Management Division of the Environmental Protection Commission of Hillsborough County within 45 days of testing. [Rule 62-297.310(7)(a)4., F.A.C.]

Facility Comment

9.) *We feel the most accurate way to determine maximum process rates would be to base everything on the production rates of the kilns. We propose the process rates listed in Attachment 1 – Process Rates. We respectfully request approval of the assumptions regarding additives, recycled material, and moisture content and that*

the final approved version of this table be included as an attachment in the Permit. Further, a new set of emissions calculations using these assumptions and your recommended emission factors is provided under Attachment 2 –PTE Calculations. It shows a maximum PTE of 13.93, similar to what is shown in the Draft Permit. We have included building efficiencies in the transfer point calculations, which was not done in the draft calculations. We are making these requests in the interest of clarity and consistency, especially when it comes to filing future annual operating reports.

EPC Response to Comment No. 9.)

EPC's PTE estimates are based on the production rate of the kilns, average material moisture content, recycled material content, and baghouse specifications. EPC staff has no objection to including Attachment 1 as part of the permit. However, based on a recent re-evaluation of the process rate for the disc mill and hammer mill operation, the mills only operate at a single speed and, therefore, the process rate cannot be varied. Furthermore, a wide variability in mill capacities was encountered during the process rate evaluation depending on the method used to calculate the maximum rates. Therefore, the maximum process rate for the mills is being removed from the permit, provided that the facility performs an annual VE test on the operation under normal operating conditions, and operates the mills less than 3,330 hours per year.

Based on our calculations for the material transfer points by using the continuous drop equation (0.0013 lb/ton), the PM emissions are low even without applying an additional building enclosure factor. However, the PM PTE's were re-evaluated and the enclosure factor was applied. Since the regulatory implications are not affected by a fraction of a ton in this circumstance, the permit is being revised to reflect a facility-wide PM PTE of 14 TPY. Please note that an updated table was submitted by the facility on August 2, 2012 to reflect an increase in the hours of operation to 3,330 hrs/yr for the combined disc mill and hammer mill operation.

Facility Comment

10.) As this applies to EU003, the baghouse, Hammer Mill and Disc Mill, because we are keeping the 2400 lb/hr Kiln #2 rate, the process rate increased to a maximum 3.59 tons /hr with a maximum 2783 hours/yr. This is not a request to increase production on this equipment, simply a better accounting of the material flow through the plant, which is a mutual goal. Note that this has little impact on the PTE. We request that this figure be amended in the Permit under Specific Conditions #4.A.

EPC Response to Comment No. 10.)

See response to Comment No. 9. In addition, the PM PTE for the baghouse has been calculated in this renewal permit using the manufacturer's specifications and rated air flow rate.

Facility Comment

*11.) We believe we are in agreement on the following:
Page 5 of 6, condition 12.A.2. The correct identification of the baghouse model number is "168 C10".*

Page 5 of 6, condition 12.A.3. The efficiency is 99.9%, not 98.5%, per email from the manufacturer. (Attachment 3 – Efficiency Statement)

Page 5 of 6, condition 12.A.5. The correct operating pressure is 0-10", not 0-8" as listed. This range has appeared in previous versions of the Draft. (see email dated 5/17/2012 from Jason Waters)

Page 5 of 6, condition 12.A.10. The correct stack height is 8 feet not 20 feet.

Page 6 of 6, condition, 13.A & B. Add "Not applicable to routine maintenance, repair, or replacement of component parts."

EPC Response to Comment No. 11.)

During the conference call on June 27, 2012, EPC staff agreed to make the changes on the above items except for the baghouse pressure drop range. EPC staff expressed concerns during the teleconference on June 27, 2012 and another teleconference between EPC staff and EEC on August 1, 2012 that the 0-10" pressure drop range is too high for pulse jet type baghouses because higher pressure drops may be indicative of bag cleaning system problems and could lead to capture problems at the source and/or pinholes in the bags which could lead to visible emissions problems. Please note that there are no specific requirements on the cleaning cycle frequency or duration in the permit. Furthermore, during the teleconference on June 27 and August 1, EPC staff also requested information or justification from the manufacturer regarding the pressure drop range of the baghouse. Since no manufacturer's information was provided to the contrary, and the facility agreed to the range of 0-8" w.c. in the e-mail from Doug Hippler, VP of Manufacturing dated August 2, 2012, Specific Condition No. 12.A) will reflect a pressure drop range of 0-8" w.c.

Facility Comment

12.) There are a few text changes in the draft permit descriptions to point out. These are minor changes for accuracy:

*Page 1 of 6: 5th paragraph: "two feed hoppers, where it is transferred by belt to a weigh hopper."
"gravity fed from the hopper to a two stage mixing tank to the extruder to form quarry tile or pool coping,"
"3.59 TPH"*

Page 1 of 6: 6th paragraph: "Recycled brick and raw clay are loaded into a hopper"

*Page 2 of 6: 1st paragraph: "transferred by belt conveyor to storage Tanks 1 and 2"
"The ground clay from Tanks 1 and 2 are gravity fed"
"to the extruder to form brick pavers, and then fed"*

2nd paragraph: "Approximately 15% of the finished product is recycled material."

EPC Response to Comment No. 12.)

EPC has no objection to these minor changes as requested above. In addition, it will be clarified in the permit that approximately 10-15% of the finished product is recycled material.