COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MINING AND RECLAMATION

INSPECTION REPORT
NONCOAL

Date 1/18/2011
On Site Times AM

Mine Name: Hercules Quarry
Weather: Rain, ~32°F

PERMITTEE
Hercules Cement Company
ADDRESS
P.O. Box 69
Stockertown, PA 18083
610-759-6300

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MINING AND RECLAMATION

TOWNSHIP
Upper Nazareth

COUNTY
Northampton

PERMIT NO.
7473SM2

LICENSE NO. & EXP. DATE
6777 Pending

GENERAL MINING INFORMATION:
Large Noncoal ☑ Small Noncoal ☐ Complete ☑ Partial or Followup ☐

a. Areas-Minerals-Pit Dimensions (L/W/H) - Method: 4600(1402.8m)X1200(365.76m)X280(85.34m) 6 levels
b. Acreage (total): 301.3(120.52ha) Bonded 269.3(107.72ha) Affected Unknown Regraded ☐ Reclaimed ☐
c. Equipment-Use & Conditions: Primary crusher; 2FELs; track excavator; dozer; drill rig; pneumatic hammer; drill rig; grader;
haultrucks; waterwagon
d. Contract Miner ☐ yes ☐ no

e. Blasting at Site ☐ yes ☐ no (Explain yes answer) ORICA, Mauer & Scott

PERFORMANCE STANDARDS NONCOAL

<table>
<thead>
<tr>
<th>Obs.</th>
<th>STANDARD</th>
<th>PC or Reg.</th>
<th>Viol.</th>
<th>Comp. Date</th>
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<th>Comp. Date</th>
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<td>Concurrent Reclamation</td>
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<td>X 701</td>
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<td>X 731</td>
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COMMENTS AND RECOMMENDATIONS: January 16, 2011 - This complete inspection was conducted "solo." Blast reports #32 (12/20/2010) through #24 (10/22/2010) and #22 (9/23/2010) were reviewed. Blast report #27 (11/12/2010) indicated that the operator detonated a blast which exceeded the maximum allowable peak particle velocity and had a scale distance of less than 50. Mr. Ross Klock (Blast Inspector/Pottsville District Office/DEP) took action regarding the above described violation in his December 8, 2010 inspection report. Blast report #31 (12/9/2010) indicated that the seismograph did not record seismic data when the blast was detonated. Mr. Klock took action regarding the above described incident in his December 20, 2010 inspection report. All other blast report and seismic data appeared to meet the requirements of the blast plan and of the regulations.

January 20, 2011 - I was accompanied on this day of the inspection by Mr. Gerry Opreska (Quarry Supervisor/Hercules Cement Company, Inc.). A small amount (~20 gal/min) of clear water was discharging through Outfall #007A. Clear water was discharging through Outfall #007C. No water samples were collected. Clear water was flowing in the Bushkill upstream of

Person Contacted
Mr. Gerry Opreska
Quarry Supervisor

Discharge/Seeps ☐ yes ☑ no
Samples Collected ☐ yes ☑ no
Range of Samples Collected #4556001, Test 759

Signature

To be mailed

The Operator's signature acknowledges that he has read the report, including the reverse side, and that he was given the opportunity to discuss it with the investigator. The signature does not necessarily mean he agrees with the report.
Outfall 007A. Water has been pumped from the eastern impoundment to the western impoundment. At least one diesel pump was pumping water from the sump located east of the western impoundment to the western impoundment.

One track excavator was loading one articulated haul truck with shot rock located near the 100' MSL floor east of the western impoundment and grout curtain. The haul truck was hauling the shot rock to the Haines and Kibblehouse plant. One front-end loader was operating near the western impoundment. The Haines and Kibblehouse plant was operating. Two front-end loaders were operating near the Haines and Kibblehouse plant.

I explained to Mr. Opreska the importance of establishing 25 foot benches between 50 foot working faces. I pointed out an area in the pit where the operator previously failed to establish the required 25 foot bench. I also explained to Mr. Opreska that an area located along the southeastern pit wall (west of the old slide area) must be developed with a 25 foot safety bench (see attached picture).

Mr. Opreska said that sinkholes, reported to the Department on January 10, 2011, have not yet been filled.

In my inspection report of July 30, 2010, I wrote, in part, "The blast warning sign (see attached picture) and possibly the blast warning signals used at the quarry do not meet the requirements of Chapter 211.155(6), Preblast measures and Chapter 211.157(c), Postblast measures, of Title 25 of the Pennsylvania Code (see attached)." In my October 14, 2010 inspection report, I wrote, in part, "When discussed with Mr. Opreska, he expressed concern that the change in warning signals may cause confusion and lead to a safety issue. Mr. Opreska also indicated that the blast plan describes the warning signals currently in use. This issue and Mr. Opreska's concerns were brought to the attention of Mr. Ross Klock (Blast Inspector/Pottsville District Office/DEP). Mr. Kclock said that the operator should either start using the blast warning signals described in Chapter 211.155(6), Preblast measures and Chapter 211.157(c), Postblast measures, of Title 25 of the Pennsylvania Code or submit a letter to the Pottsville District Office requesting a variance to allow the operator to continue using the established signals. In the letter, all of the reasons for continuing the use of the established signals should be listed. The Department will then make a determination and inform the operator." Mr. Klock granted the operator a variance to continue to use the established signals.

January 24, 2011 – The operator left voicemail messages over the weekend saying that the electric pumps, located in the western sump, were not operating as intended. I arrived on the permit area and spoke with Mr. Opreska. He said that the plant was scheduled for a shutdown during the hours of 7:00 A.M. to 3:00 P.M. on January 22, 2011. Mr. Opreska said that when the plant was powered down, electricity to the electric pumps, located in the western sump, was also unintentionally shutdown. Mr. Opreska said that the unintended shutdown of electricity to the electric pumps was due to a programming problem with the Programmable Logic Computer (PLC). Mr. Opreska said that power to at least two of the four electric pumps was restored by 9:00 A.M. on January 22, 2011. Mr. Opreska said that the two pumps continued to pump until approximately 3:30 A.M. on January 23, 2011 when again the electricity to the pumps was unintentionally disconnected. Mr. Opreska said that electricity to at least two of the four pumps was again restored at approximately 9:00 A.M. on January 23, 2011. Mr. Opreska said that electricity to the pumps was again unintentionally disconnected at approximately 11:30 A.M. on January 23, 2011. Mr. Opreska said that electricity was restored to three of the four electric pumps by approximately 11:30 A.M. on January 24, 2011.
4:00 P.M. on January 23, 2011, Mr. Opreska said that three pumps have been operating since 4:00 P.M. on January 23, 2011. Mr. Opreska said that normally two pumps are operated, however, the water level in the western sump had risen and the operator decided to operate three pumps. Mr. Opreska explained that manual override switches have been added to two of the four electric pumps and that currently a third pump is being equipped with a manual override switch.

I asked Mr. Opreska whether all of the contacts listed on the "call list" were contacted. Mr. Opreska said that he contacted Mr. Richard Zimmel (Hercules Cement Company) at approximately 12:00 P.M. on January 23, 2011 at which time Mr. Zimmel began to notify the contacts.

Pollution as defined in "The Clean Streams Law", Act of 1937, P.L. 1987, No. 394, shall be construed to mean contamination of any waters of the Commonwealth such as will create or is likely to create a nuisance or to render such waters harmful, detrimental, or injurious, to public health, safety or welfare, or to domestic, municipal, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish, or other aquatic life, including but not limited to such contamination by alteration of the physical, chemical, or biological properties of such waters, or change in temperature, taste, color or odor thereof, or the discharge of any liquid, gaseous, radioactive, solid or other substances into such waters. On January 22 and 23, 2011, the operator altered the physical properties of waters of Bushkill Creek, in that the operator decreased the water discharge rate to Bushkill Creek, whereby the lower discharge rate was insufficient and could not sustain an adequate flow of water downstream of Outfall #007C, thereby creating pollution. Therefore, a Notice of Violation is being issued. It is requested that the operator submit, to the Department, a plan describing how an adequate flow of water will be maintained in the Bushkill Creek to protect the natural biota of Bushkill Creek within the operator's zone of influence until such time as the hydrologic balance affected by mining is restored. The Department will review the plan and take into consideration the operator's proposed actions in any decision to take enforcement action in response to the noted violation. The plan shall be received by no later than 8:00 A.M. on February 25, 2011.

Water discharging from Outfall #007C was not as clear as the water flowing in the Bushkill just upstream of the outfall. Water sample #4556001 was collected.

In order to accurately identify the elevation of the floor, the Department is requesting of the operator employ a surveyor to establish a field mark on the quarry wall listing the elevation. This work should be completed as soon as possible and prior to February 7, 2011.

Violation History: December 8, 2010 – 1 – Compliance Order – Failure to comply with Chapter 211.151(c), Prevention of damage, of Title 25 of the Pennsylvania Code; December 21, 2009 – 1 – Compliance Order – Discharge of water from an area hydrologically connected to mining activities which has caused degradation of Shoeneck Creek, May 18, 2009 – 1 – Notice of Violation – Failure to comply with Special Condition #20

<table>
<thead>
<tr>
<th>Person Contacted</th>
<th>Title</th>
<th>Discharge/Seeps</th>
<th>Samples Collected</th>
<th>Range of Samples Collected</th>
<th>Investigator Signature &amp; I.D. No.</th>
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</thead>
<tbody>
<tr>
<td>Mr. Gerry Opreska</td>
<td>Quarry Supervisor</td>
<td>✗ yes</td>
<td>✗ yes</td>
<td>#4556001, Test 759</td>
<td>455</td>
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District File/Permittee/Inspector