DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

N691340634

FACILITY: Searles Construction - 45 Plant		**SRN / ID:** N6913
LOCATION: N. Dewitt Road, SAINT JOHNS		**DISTRICT:** Lansing
CITY: SAINT JOHNS		**COUNTY:** CLINTON
CONTACT: Leon Searles , President		**ACTIVITY DATE:** 06/28/2017
STAFF: Julie Brunner	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Compliance inspection for GPTI 369-00, non-metallic mineral crushing plant AC45.		
RESOLVED COMPLAINTS:		

On June 28, 2017, I conducted a scheduled inspection of Searles Construction Inc. portable non-metallic mineral crushing plant AC45 operating per the requirements of General Permit to Install (GPTI) No. 369-00. This portable crushing plant was last inspected on May 23, 2012.

Facility Name and Location:
Searles Construction – 45 Plant (N6913)
Ovid Pit, 8175 East M21, Ovid, Michigan

Facility Contacts:
Leon Searles (searlesconstr@searlescompanies.com), office: 989-224-3297
Katrina Pease (searlesconstr@searlescompanies.com), office: 989-224-3297

Facility Background and Regulatory Overview:
Searles Construction Inc. is a sand and gravel mining operation with gravel pits located in the Saint Johns and Ovid. The 45 Plant was relocated from the Dewitt Pit to the Ovid Pit, and is producing road commission gravel. The operation includes crushing, screening, and conveying equipment, and portable diesel fuel-fired generators to power the plant.

The area surrounding the Ovid Pit is mainly rural with some residential housing mixed in.

Staff #: 2 plant operators **Shifts/Day:** 1

Days of Operation/Week: Local zoning restricts the hours of operation, but the plant operates from 6:00 am to 7:00 pm Monday thru Friday, and 6:00 am to 3:00 pm on Saturday.

Portable crushing plants are minor sources of any regulated air contaminants including hazardous air pollutants (HAPs) and not subject to the Title V Renewable Operating Permit (ROP) program. Equipment that is part of a portable crushing plant could be subject to the New Source Performance Standard (NSPS) in 40 CFR 60, Subpart OOO — Standards of Performance for Nonmetallic Mineral Processing Plants as follows:

§60.670 Applicability and designation of affected facility.
(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station....

The equipment permitted on GPTI 369-00 is subject to the requirements of 40 CFR 60, Subpart OOO as indicated on the GPTI Application form. The affected facility is capable of processing greater than 150 tons per hour, and each piece of equipment is subject if it was constructed after August 31, 1983.

The portable diesel fuel-fired generator is considered non-stationary and non-road. The designation of the diesel engine as a non-stationary engine establishes that it is not subject to 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The designation of the diesel engine as a non-road engine establishes that it is not subject to 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

Michigan Air Emissions Reporting System (MAERS):
The facility reports to MAERS as a Category III fee subject. There were 28.84 lbs of particulate matter less than 10 microns (PM10) emissions reported for 2016 due to crushing operations. The plant processed 577 tons of sand and gravel in 2016. Diesel fuel usage was 7,542 gallons with emissions of carbon monoxide (CO) reported at 980.46 lbs, nitrogen oxides (NOx) of 4,555.37 lbs, sulfur dioxide (SO2) of 299.42 lbs, and PM10/2.5 of 320.54 lbs.

Inspection:
Arrived: 11:49 am
Departed: 12:40 pm
Weather: 75°F, S 14 MPH, clear

I called the office of Searles Construction the day of, and talked to Mr. Leon Searles (owner and operator) before driving to Saint Johns. I met with Leon, and explained the purpose of my visit. The 45 plant was recently moved from the Dewitt Pit to the Ovid Pit. The Dewitt Pit is mined out. No relocation notice was sent. But, the equipment has been inspected by MSHA (mine safety). Leon has an order for 40,000 tons of 1" gravel for the road commission.

After the discussion, Leon drove me out to the Ovid Pit. The driveway entrance into the pit is asphalt to the gate, and then the roads are gravel around the pit. There is a lot of standing water in the pit as the water table is high. A front end loader can be used to scoop up water to add to the process, but water has not been installed on the equipment with this last move. The crusher was not operating when we got there and I checked the equipment before the plant was operated.

Equipment On-Site and Company IDs:

Device ID	Equipment	Make	Max. rated capacity (ton/hr)	Notes / Subpart OOO tested
407	Feeder	Hartman Fabco – DR2 36"	NA	Mf. Date NA / Tested 10-05-2000
Recycle #3 (no ID)	Conveyor	NA (36" x 50")	NA	"New"
601	Crusher	Allis Chalmers – 45 Crusher, Max of 110 ton if making 1", engine CAT 3406, 400 hp	120	Water spray not installed, Mf. Date NA / Tested 10-05-2000
503	Conveyor	Hartman Fabco (18" x 63')	NA	Mf. Date NA / Tested 10-05-2000
505	Conveyor	NA (36" x 73")	NA	Not on PTI 369-00
528	Conveyor	Hartman Fabco (36" x 73")	NA	Not on PTI 369-00
529	Conveyor	Hartman Fabco (30" x 118")	NA	Mf. Date NA
530	Conveyor	Hartman Fabco (36" x 83')	NA	Mf. Date NA /

				Tested 10-05-2000
531	Conveyor	Hartman Fabco (30" x 20')	NA	Mf. Date NA / Tested 10-05-2000
532	Conveyor	Hartman Fabco (36" x 73')	NA	Mf. Date NA / Tested 11-03-2000
533	Conveyor	Hartman Fabco (30" x 83')	NA	Mf. Date NA / Tested 11-03-2000
550	Conveyor	NA (24" x 40')	NA	Not on PTI 369-00
NA	Rental generator	CAT engine (230 kW)	NA	Old generator needs to be replaced

The process was started up while we were on-site. Startup was dusty because the material was dry and when the bank run material was added to the feeder, the natural moisture brought the dust down. Leon showed me where the spray bars would be added to the crusher but were not currently installed. I recommended that the capability to add water to the process be reinstalled as required by permit.

Visible Emission Limits
Special Condition (SC) 1.2 contains visible emission limits for crushers, screens, and conveyors. When the process was started, there were visible emissions from the crusher and transfer points that decreased as material processed had some natural moisture.

Material Processing
In SC 1.3, the permit limits material throughput to 2,000,000 tons per year per site. The plant operates well below the material throughput limit.

Process/Operational Limits
SC 1.6 The program for continuous fugitive emissions in Appendix A in the permit must be followed in order to operate the crushing facility. The facility has a program for fugitive dust control in place.

Equipment
SC 1.7 Each crusher and screen is required to have water spray equipped (or bag house). Water spray was installed on the crushing equipment in the past. I confirmed with Katrina (back in the office) that water capabilities will be reinstalled and provided for plant operations.

Testing
SC 1.8 requires verification of visible emissions from 40 CFR 60, Subpart OOO subject equipment. See the table above for equipment that has been tested. The new conveyor may need to be tested.

Recordkeeping (Monitoring)
SC 1.9 requires daily and annual records of material processed. A copy of the operating record from 05-18-2017 to 06-27-2017 was provided. Materials produced were 23A and 23A mod. The amount of material produced is measured on-site by an electronic scale that sends the measurements back to the office. No scale operator is on-site.

Records for all the Searles crushing plants from 2005 to 2016 were viewed in the office. The highest amount of material sold in that time frame was 1.2 million tons. Searles has had permits for four (4) plants: N1588 (36 Plant), N6910 (72 VSI/Extec Plant), N6913 (AC45), and N6914 (Wash Plant). The GPTI 371-00 for N1588 (36 Plant) and GPTI 368-00 for N6910 (72 VSI/Extec Plant) have been voided.

Permit Dates
SC 1.11 requires that equipment be labeled with company IDs. All equipment was kind of labeled. Some labels were either very hard to read or did not match with GPTI 369-00.

Miscellaneous/Allowed Modification
The plant process information needs to be modified/updated per the requirements of SC 1.12. Plant setup information was provided at the time of inspection. As discussed above, the equipment IDs do need to coordinate with the device ID assigned on GPTI 369-00.

The notice of intent to relocate per the requirements of SC 1.13b was received at the time of the inspection. The plant was located at the Ovid Pit in early May 2017 and the amount of material to be processed at this site is 150,000 tons. The closest residence is located approximately 1000 feet to the south of the crushing plant in compliance with SC 1.13c which requires a minimum of 500 feet from a residential or commercial establishment. Katrina will make sure that a copy of the general permit and conditions are on-site with the operators as required by SC 1.13d.

Fugitive Dust Control Plan – Appendix A
When I was out walking around the pit, the roads were not dusty. There did not appear to be much track out due to truck traffic between the gate and the road. They don't like to chloride the roads, but do need to keep an eye on road dust if conditions get dry. Right now there is a lot of natural moisture on-site and road dust was not an issue.

Summary:
For the paperwork which includes updating the process information forms, Katrina is going to try and get submitted by July 17th. The plant was in compliance with all applicable air quality rules and regulations, and will be in compliance with GPTI 369-00 once the permitting is updated and process water provided and reinstalled on-site.

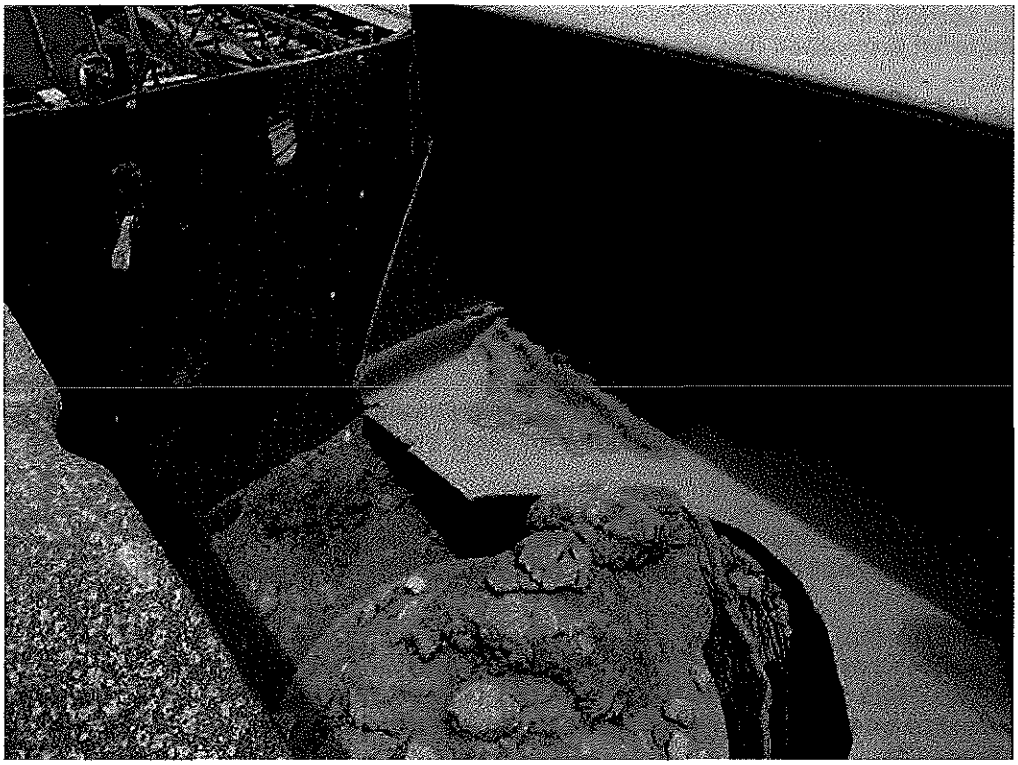

Image 1(Crusher) : Top of crusher

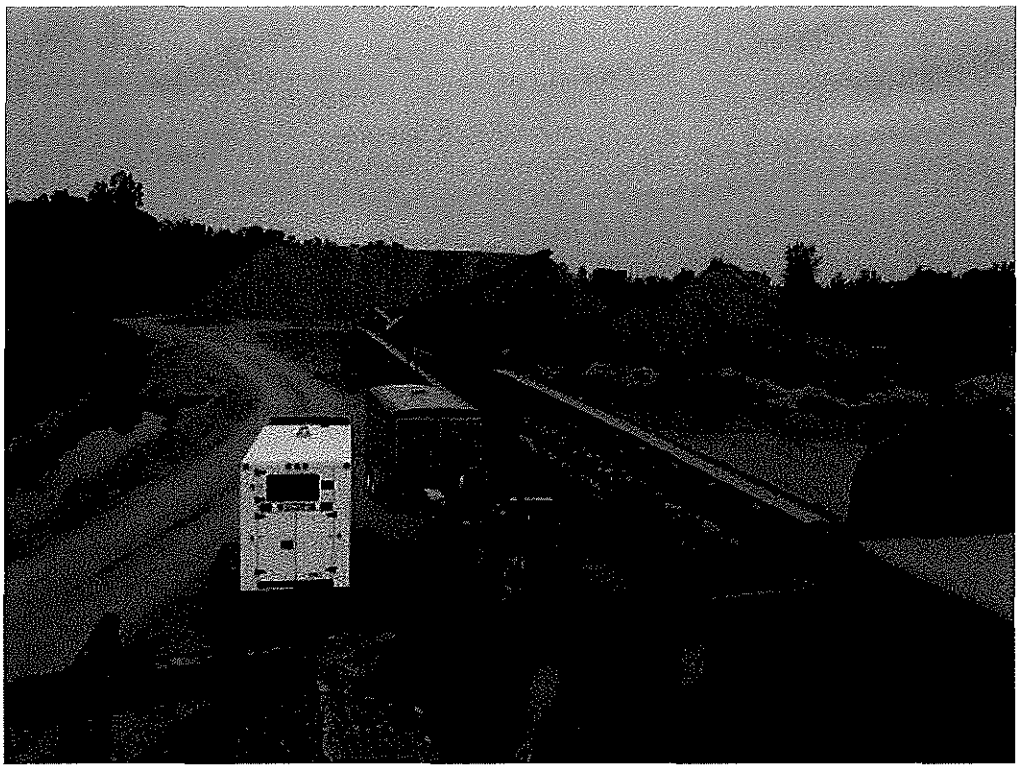

Image 2(Plant view) : Conveyors to stacker, and portable engine

Image 3(Plant view) : Feeder, conveyors to crusher

NAME Julie L. Brunner DATE 7/11/17 SUPERVISOR B. M.