

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

N691440659

FACILITY: Searles Construction - Wash Plant		SRN / ID: N6914
LOCATION: 4551 N. Airport 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 370-00, Wash Plant		
RESOLVED COMPLAINTS:		

On June 28, 2017, I conducted a self-initiated inspection of Searles Construction Inc. portable non-metallic mineral wash plant operating per the requirements of General Permit to Install (GPTI) No. 370-00. This portable plant was last inspected on May 23, 2012.

Facility Name and Location:

Searles Construction – Wash Plant (N6914)
Thayer Pit, 4551 North Airport Road, Saint Johns, 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 Wash Plant was relocated from the Dewitt Pit to the mined out Thayer Pit. The Dewitt Pit has also been mined out. The operation includes crushing, washing, screening, and conveying equipment. A diesel fuel-fired generator powers the crusher, and line power is used to run the conveyors.

The area surrounding the Thayer 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 370-00 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

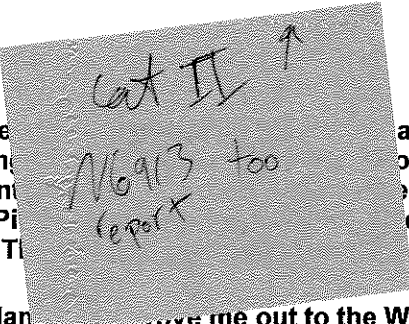
Internal Combustion Engines.

Michigan Air Emissions Reporting System (MAERS):

The facility reports to MAERS as a Category III fee subject. There were 42.9 lbs of particulate matter less than 10 microns (PM10) emissions reported for 2016 due to operations. The plant processed 858 tons of sand and gravel in 2016. Diesel fuel usage was 9,919 gallons with emissions of carbon monoxide (CO) reported at 1,289.47 lbs, nitrogen oxides (NOx) of 5,991.08 lbs, sulfur dioxide (SO2) of 393.78 lbs, and PM10/2.5 of 421.56 lbs.

Inspection:

Arrived: 12:50 pm
 Departed: 2:30 pm
 Weather: 78°F, S 17 M



I called the office of Se... and talked to Mr. Leon Searles (owner and operator) before driving... on, and explained the purpose of my visit. I ended up inspecting two plant... Wash Plant (N6914). Both plants were moved from the mined out Dewitt Pit... ent. The Wash Plant has been relocated to the mined out Thayer Pit. T... trucked in from other pits.

After visiting the 45 Plan... I drove me out to the Wash Plant. There is a lot of water in the pit for use in the Wash Plant. The plant can produce three (3) different sizes of gravel on the deck screen. The plant was not operating when we got there and an electrician was on-site to replace a part. I checked the equipment while the plant was being repaired.

Equipment On-Site and Company IDs:

Device ID	Equipment	Make	Max. rated capacity (ton/hr)	Notes / Subpart OOO tested
403? or 405?	Feeder	Hartman Fabco – Wash PI 36	NA	Mf. Date NA / Tested 10-12-2000
515	Trans Conveyor	Hartman Fabco (24" x 83")	NA	Mf. Date NA
610	Crusher	Spokane / VSI under feeder, engine 400 hp	NA	Not on GPTI 370-00
603	Classifier	McClannahan	NA	Mf. Date 1988
606	Screen	Simplicity	NA	Mf. Date NA
611	Log Wash	McClannahan	NA	Mf. Date 1988
520	Trans Conveyor	NA (36" x 43")	NA	Not on GPTI 370-00
528 (Dup #)	Radial Stacker	NA (36" x 100")	NA	Not on GPTI 370-00
L537	Stacker	NA (36" x 125")	NA	Not on GPTI 370-00
618	2 Deck Screen	NA	NA	Not on GPTI 370-

				00
504	Conveyor	Hartman Fabco (36" x 83')	NA	43' on GPTI 370- 00
512	Radial Stacker	NA (24" x 83')	NA	Not on GPTI 370- 00
513	Radial Stacker	NA (24" x 83')	NA	Not on GPTI 370- 00
??	Feed Conveyor (bypass)	NA (30" x 40')	NA	Not on GPTI 370- 00
529	Stacker	NA (30" x 73')	NA	Not on GPTI 370- 00
524 & 516	Conveyor	NA (24" x 83')	NA	Not on GPTI 370- 00
540	Trans Conveyor	NA (30" x 40")	NA	Not on GPTI 370- 00
??	Belt Feeder Conveyor	NA (30" x 18")	NA	Not on GPTI 370- 00
??	Extec	NA	NA	Not on GPTI 370- 00

Most of the equipment on-site was not on GPTI 370-00. Equipment from plants that were no longer operating had been added to the Wash Plant. Leon said that the Wash Plant would likely not be moved from the location and material that needed to go through washing would be trucked in.

The process was started up while we were on-site. Startup was dusty because the material was dry and the piles of material to be processed had time to dry while sitting. The crusher did not have water spray installed. I recommended that the capability to add water to the process be installed as required by the general 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. There were no visible emissions after the wash plant because the material was wet.

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 not installed on the crushing equipment. I confirmed with Katrina (back in the office) that water capabilities will be installed 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.

Recordkeeping (Monitoring)

SC 1.9 requires daily and annual records of material processed. A copy of the operating record from 05-04-2017 to 06-22-2017 was provided. Materials produced were natural and crushed. 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 general permits for four (4) plants: N1588 (36 Plant), N6910 (72 VSI/Extex Plant), N6913 (AC45), and N6914 (Wash Plant). The GPTI 371-00 for N1588 (36 Plant) and GPTI 368-00 for N6910 (72 VSI/Extex Plant) have been voided.

Permit Dates

SC 1.11 requires that equipment be labeled with company IDs. Some equipment was labeled. Some labels were very hard to read. The device IDs need to be updated, repainted or generally fixed so equipment can be identified as required by the GPTI.

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 370-00.

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 to the Thayer Pit in April of 2015 and the amount of material to be processed at this site is 150,000 tons. The closest residence is located approximately 700 feet to the southwest of the 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 it submitted by July 17th. The plant was in compliance with all applicable air quality rules and regulations, and will be in compliance with GPTI 370-00 once the permitting is updated and process water provided and installed on-site.

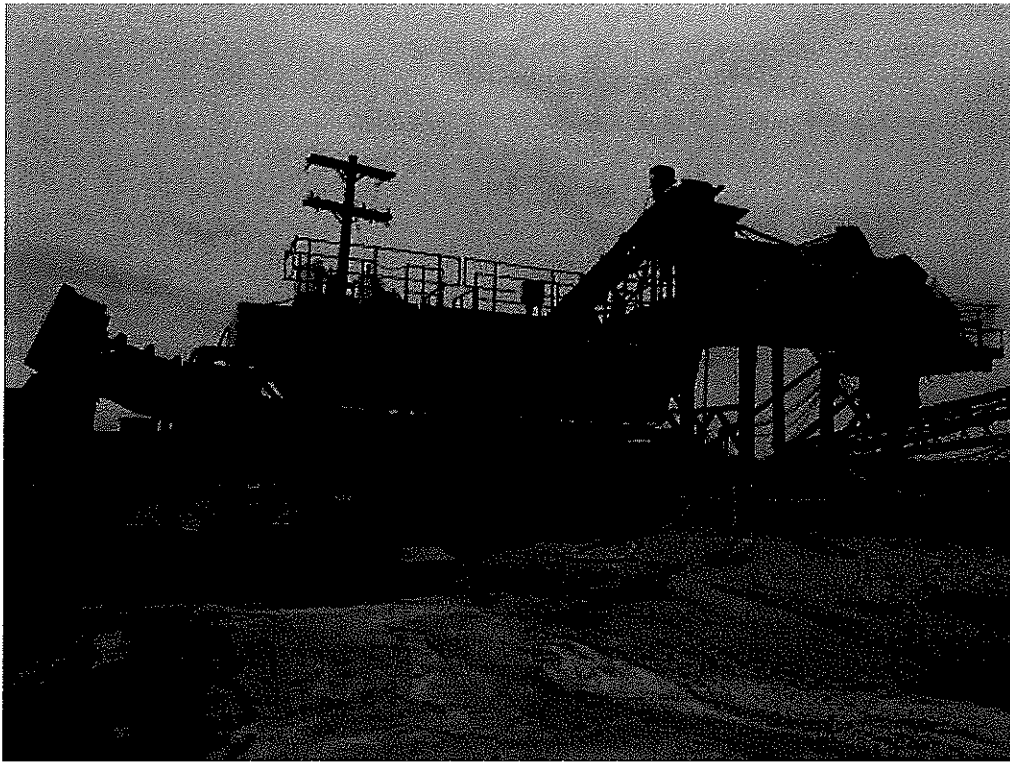


Image 1(Wash Plant) : Process Equipment



Image 2(Wash Plant) : Process Equipment

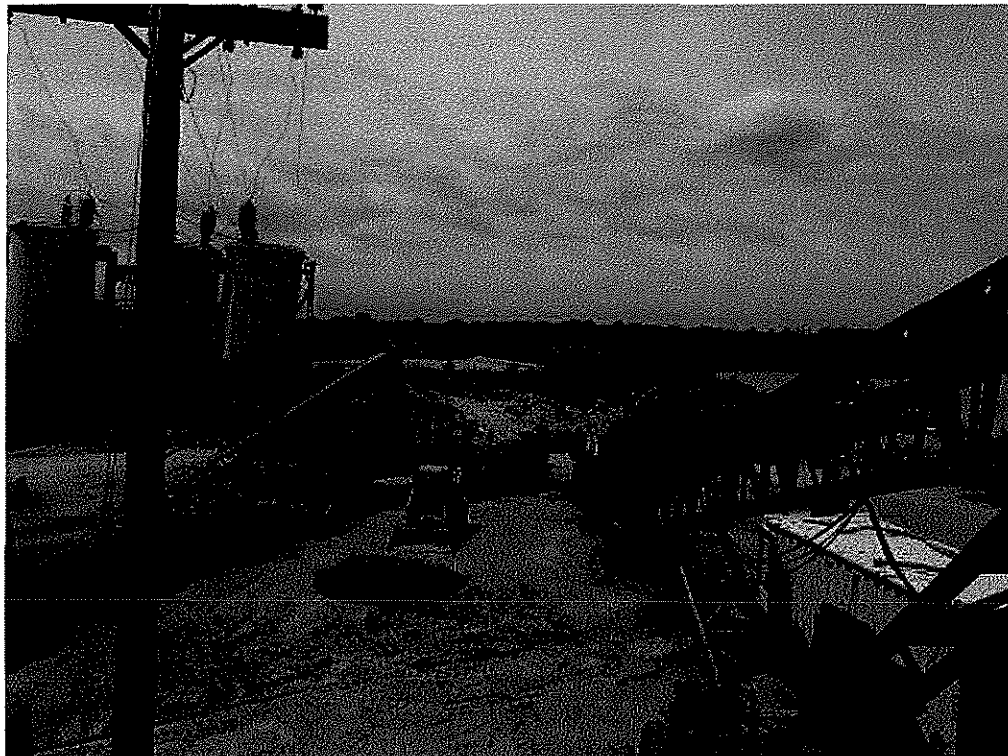


Image 3(Wash Plant) : Conveyors

NAME Julie L. Bruner

DATE 7/11/17 SUPERVISOR B.M.