

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

N670332163

FACILITY: HUBSCHER & SON, INC. - DEERFIELD PLANT		SRN / ID: N6703
LOCATION: 3400 SOUTH LITTLEFIELD ROAD, DEERFIELD TWP		DISTRICT: Saginaw Bay
CITY: DEERFIELD TWP		COUNTY: ISABELLA
CONTACT: Paul Elmore , Site Superintendent		ACTIVITY DATE: 10/07/2015
STAFF: Sharon LeBlanc	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: October 7 and 22, 2015 scheduled site inspections. Two violations noted at the time of the inspection were corrected at follow up inspection. Facility has committed to correcting recordkeeping violations, and will be visited multiple occasions during the 2016 season to confirm compliance.		
RESOLVED COMPLAINTS:		

On Wednesday, October 7, 2015, and Thursday, October 22, 2015, AQD District Staff arrived onsite to conduct a scheduled site inspection for rock crushing equipment associated with SRN N6703 AKA the dredge and wet crushing plant, (General Permit No. 164-99, most recent update in October 2009) located at the Hubscher & Sons, Inc. Deerfield Gravel Pit. Other SRNs associated with the Deerfield Gravel Pit includes N6702, N6704 and 6706. It should be noted that each SRN and associated permit reflects a separate crusher plant that operates within the permit, and is responsible for specific grades of product.

The referenced pit extends from South Littlefield Road and Tomah Road south of West Broomfield Road. (map in file). With the exception of the weigh scale located at the South Littlefield entrance of the Deerfield Pit, the Deerfield pit north of Broomfield Road is presently inactive. Active sand and gravel mining was being conducted in the portion of the Deerfield Pit south of Broomfield road, and west of Gilmore Road.

At the time of initial permitting the plant was operating on the east and west sides of Littlefield Road, and has since relocated within the Deerfield Pit to the south side of Broomfield Road. Based on aerials available through Google Earth, it appears that the dredging was occurring as early as 2005 at the present location. The existing Wash Plant is reported to have been constructed in 2007-2008.

Site Superintendent Paul Elmore met with District Staff regarding equipment and site operations. Site inspection was conducted with the intent of confirming operational status as well as compliance with the referenced permit. The wet crushing and dredge plant was operating at the time of the inspection.

No complaints are of record since the August 3, 2009, site inspection to the Deerfield Gravel Pit.

## DEVICES

The wet crushing and dredge plant is used to produce a variety of crushed and screened product. The plant will be evaluated in parts, the first being the dredge, the hopper, the crusher and associated conveyors and screens, and then the "less than 2-inch" processing portion which is referred to as the "wet plant". Equipment associated with the plant at the time of inspection included:

### Dredge Portion of Plant:

Raw materials are obtained from below the water surface using a clam dredge (maximum capacity 600 tons/hr). The dredge is mounted on a floating platform that allows it to move freely above the underwater deposits. After being brought to the surface it is deposited into feed hopper that separates out the greater than 6-inch materials to a jaw crusher (maximum capacity 250 tons/hr) located on the dredge platform, from there it is transported to a single deck screen the sorts the material into > 2-inch and <2-inch product.

It should be noted that the less than 6-inch material goes from the hopper directly to the transport conveyors (as well as any free water in the dredge), and on to the single deck screen.

Greater than 2-inch product is transported to one of the three other crusher plants located in the Pit for processing to the size/grade required by the client.

Based on the saturated nature of the materials from the dredge being fed directly to the hopper, and the jaw crusher product being directly mixed with the saturated materials on the floating and transfer conveyors the facility believes that the post crusher equipment due to the presence of free water on the conveyor system reflect a wet plant operation. This determination is reflected below, as reflected in the 2009 permit.

Device	ID No.	NSPS Subject	Test Date
Clam Dredge	4401A	No-wet process	NA
Lippman Jaw Crusher	4401B	Yes	9/24/99
Rohr Floating Conveyors	4401C	No-wet process	NA
Transfer Conveyors	4401D	No-wet process	NA
Deister Single Deck Screen	4616	No-wet process	NA
Hartman Fabco Conveyor/Stacker	1617	No – end point	
Hartman Fabco Transfer Conveyor	4619	Yes	
Nordberg Stacker	4401E	No – end point	

**Wet Portion of the Plant –**

Materials of <2-inch grade are transported from the stacker pile by loader, and fed into a hopper that transports it into the wet operations devices and their associated conveyors. These devices sort the materials into apx. 5 different material grades.

Equipment associated with the wet portion of the permitted plant included equipment identified by ID No.s in either the 4100's or the 4500's (example Eagle Sand Screw No. 4120). The 2009 permit modification reported equipment ID no.s in the 4600's. It is unclear based on lack of manufacture dates as well as make and model information for some pieces whether they reflect all new equipment or merely renumbered equipment that existed onsite. The facility operator stated that he believed the older equipment had been scrapped.

1999 Permitted Devices (Not presently in use)		2009 Permitted Devices	
Device	ID No.	Device	ID No.

<b>Nordberg Transfer Conveyors</b>	<b>4402, 4403</b>	<b>Hopper</b>	<b>4600</b>
<b>Eagle Sand Screw</b>	<b>4104A</b>	<b>Conveyor 320</b>	<b>4601</b>
<b>Hartman Fabco Sand Stacker</b>	<b>4104B</b>	<b>Diester 2-deck horizontal wet screen</b>	<b>4602</b>
<b>Simplicity Horizontal 3- Deck Wash Screen</b>	<b>4104D</b>	<b>Shop made conveyors</b>	<b>4603, 4604, 4606</b>
<b>Hartman Fabco Surge Conveyor</b>	<b>4104E</b>	<b>Eagle logwasher</b>	<b>4605</b>
<b>Syntron Feeder</b>	<b>4104G</b>	<b>Deister Horizontal Screen</b>	<b>4607</b>
<b>Hartman Fabco Feed Conveyor</b>	<b>4104H</b>	<b>Shuttle Conveyor</b>	<b>4608, 4610</b>
<b>Simplicity 2-Deck Wash Screen</b>	<b>4107</b>	<b>Radial Stacker</b>	<b>4609, 4611, 4612</b>
<b>Single Sand Classifier</b>	<b>4115</b>	<b>Eagle Sand Screw</b>	<b>4613</b>
<b>Sand Screw</b>	<b>4120</b>	<b>Eagle Classifier</b>	<b>4614</b>
<b>Hartman Fabco Sand Conveyor</b>	<b>4122</b>	<b>Stacker</b>	<b>4615</b>
<b>Pioneer Jaw Crusher</b>	<b>4502</b>	<b>Deister single deck screen</b>	<b>4616</b>
<b>Hartman Fabco Top Feed Conveyor</b>	<b>4505</b>	<b>Hartman Fabco Radial Stacker</b>	<b>4617</b>
<b>Eagle Logwasher</b>	<b>4506A</b>	<b>Conveyor</b>	<b>4618</b>
<b>Deister Wet Rinse Screen</b>	<b>4506B</b>	<b>Hartman Fabco Conveyor</b>	<b>4619</b>

Allis 645 Crusher	Chalmer Cone	4507		
Simplicity Deck Screen	3- Wet Wash	4510		

Presently operated wet plant equipment is presented in the above table in *Italics*. With respect to NSPS Testing, it appears that the existing portion of the plant is a wet plant in it's entirety, and is not subject to VE testing for opacity under the subpart.

Devices had at the time of the September 17, 2009, site inspection been labeled as required by permit, but at the time of the October 7, 2015, inspection had faded to an unreadable state. Mr. Elmore indicated that the re-labeling would be completed within the week. Re-labeling was confirmed on October 22, 2015.

**COMPLIANCE**

As noted previously, the Plant is permitted under General Permit No. 164-99. The referenced General Permit was most recently updated on October 21, 2009. As noted above various devices are subject to NSPS subpart OOO and reports emissions annually.

Production – The General Permit for the dredge and wet crushing Plant limits production to less than 2 million tons of non-metallic mineral product per year per site. Annual production reported under the Michigan Annual Emissions Reporting System (MAERS) is well below the annual limit. It should be noted that for annual emissions purposes, the facility reports through put based on total sales which are believed to mirror production records.

The facility reports that they do not crush any asbestos tailings or asbestos containing materials onsite, in compliance with the permit.

Recordkeeping and Monitoring- Under the present permit the facility is required to keep daily records of production for the plant. At the time of the previous site inspection, Mr. Elmore reported that plant operators recorded number of bucket loads of materials unloaded into the hopper for processing.

During the October 7, site visit, it was determined that recordkeeping practices had fallen to the wayside. Mr. Elmore during the October 22, 2015 site visit, committed the facility to reporting production based on the operating period of the dredge (hour meter on the dredge) and the maximum material rate for the dredge. The hour meter is totalizing hour meter, which will be reported daily on the daily safety check reports completed by the operator at the beginning of each operating day. Mr. Elmore has indicated that he will be creating a spreadsheet to more easily monitor and record the data.

Emissions - Per the General Permit, the facility is required to equip each crusher and screen with a water spray to control emissions/dust. The presence of these dust controls was confirmed as part of the October 7, 2015, inspection.

No fugitive dust was noted on roadways at the time of the inspection. Roads were wet, and the facility maintains records of dust control applications to the roadways.

NSPS Testing – Based on available records it appears that all NSPS subject equipment requiring VE testing was tested in 2009.

**SUMMARY**

At the time of the October 7<sup>th</sup> and 22<sup>nd</sup>, 2015 site visits, the facility was determined to have had two compliance issues. Based on discussions with the Pit Supervisor and subsequent activities by facility staff, all the plant equipment has been relabeled for easy identification, and a commitment to implement appropriate production record keeping activities has been given.

District Staff will be following up with the facility regarding recordkeeping practices for the 2016 season. Should the facility not show implementation of proper recordkeeping practices a VN will be issued at that time.

NAME Maureen LeBlanc

DATE 11/16/15

SUPERVISOR C. Ware