DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

P054555669

FACILITY: SAND PRODUCTS CORPORATION		**SRN / ID:** P0545
LOCATION: 5021 W US-2, MORAN		**DISTRICT:** Marquette
CITY: MORAN		**COUNTY:** MACKINAC
CONTACT: Michael Kerbersky , FACILITY MANAGER		**ACTIVITY DATE:** 07/16/2020
STAFF: Joe Scanlan	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MINOR
SUBJECT: Announced inspection to determine compliance with PTI 134-14		
RESOLVED COMPLAINTS:		

LOCATION: Sand Products Corporation is located at 5021 West US-2 in Moran Township, Mackinac County, between the villages of Epoufette and Brevort. The facility's office, process/storage buildings, and port are located south of US-2, while the sand pit is located on the north side of US-2. The area is rural and borders Lake Michigan on the southern shore of the Upper Peninsula.

FACILITY DESCRIPTION: Sand Products Corporation has multiple locations and port facilities and has been in operation since 1924 in Michigan, supporting manufacturing with raw materials for casting (foundry sand), metal smelting, and natural gas well services.

The Moran location has been in operation since 1963; the sand processing wash plant was completed and began operation in 1980 and shipping began in 1984 via company-owned vessels. The plant typically operates 30 weeks per year from April through November, running two 10-hour shifts, five days a week.

The sand mine north of US-2 is approximately 140 acres. Bank run sand is pulled from the sides of the sand pit, screened to 1/4" minus, then conveyed underneath US-2 to a surge pile before further processing. From the surge pile the sand is conveyed to a transition scrubber to remove organic matter and other large material. The transition scrubber is located underneath a roofed open-sided structure. Next, washed sand is pumped inside the processing plant where any clay content (clay content varies from 0.5-1.25%) is eliminated via three cyclones. Once thru the cyclones, final product is stored inside until loaded onto ships for transport. Much of the finished sand product is used in the fracking industry and as foundry sand.

Limestone or sand from off-site sources (typically limestone from Graymont) is trucked in and unloaded into a grizzly feed hopper near the main entrance to the facility. From there product is moved via an overland conveyor to a transfer conveyor which dumps the limestone product onto a surge pile. Product from the surge pile is gravity-fed through gates onto the reclaim conveyor which travels through an underground tunnel and finally to the loadout conveyor and onto the waiting ship or barge (same loadout conveyor used for the sand product).

REGULATORY APPLICABILITY: All of the original equipment at the facility associated with sand processing meets the Rule 285(t) exemption for the mining and screening of uncrushed native sand and gravel.

On November 18, 2014, Permit to Install No.134-14 was issued, for a sand and screened limestone conveying system at an existing sand mining and distribution (ship/barge loading)

facility. This PTI addresses the material handling equipment and storage piles identified in EUPROCESS, EUTRUCKTRAFFIC and EUSTORAGE.

From the permit evaluation, calculated emissions are 30 tpy PM, 14.2 tpy PM-10, and 2.15 tpy PM -2.5 based on continuous operation. Actual emissions are much lower as the company will only be able to operate seasonally when barges are available to access the loadout area.

No PM dispersion modeling was performed due to the PTE being below the significance level for PM-10 (15 tpy) and PM-2.5 (10 tpy). Opacity limit is 10% for all drop and transfer points and 5% opacity for roads, lots and storage piles.

INSPECTION: My contact for the inspection was Mr. Michael Kerbersky, Facility Manager.

PTI 134-14

EUPROCESS

Bank run sand and the limestone have a high moisture content. At the time of inspection, bank run sand was in the process of being conveyed and screened and deposited onto the surge pile. There were no visible emissions/fugitive dust observed as the sand fell from the conveyor onto the surge pile (SC No. I.1).

To date, only limestone from Graymont Western has been processed using the grizzly hopper/convey/surge pile/loadout system. Total limestone processed since PTI 134-14 has been issued is 60,000 tons. Three ships have been loaded with the limestone product, each ship carrying 20k tons. The most recent ship was loaded in the Fall of 2019 and the two other ships were loaded in 2018. This system for accepting and transferring product from off-site is not frequently used.

The company does not process asbestos nor does the sand contain any asbestos material (SC No. II.1).

The facility has not processed more than 1,000,000 feed tons of material for any 12-month rolling time period (SC No. II.2 and VI.1-2). Per an information request via email the company provided six months of records for material processed:

- March 2020: 0 tons
- April 2020: 0 tons
- May 2020: 0 tons
- June 2020: 94,662 Feed tons/84,342 Wet tons after process minus waste/80,547 Dry tons after drying
- July 2020: 87,807 Feed tons/79,041 Wet tons after process minus waste/76,041 Dry tons after drying
- August 2020: 80,463 Feed tons/73,691 Wet tons after process minus waste/70,375 Dry tons after drying

The facility typically operates for about 8 months during any given year, from as early as April until as late as November. Average tons for June, July and August 2020 is 87,644. If the facility increases monthly production and/or extends seasonal production it is possible they may exceed the permitted limit of 1,000,000 feed tons.

The company applies water and calcium chloride as needed to maintain fugitive emissions to a minimum. The facility maintains receipts for calcium chloride applications by a local contractor and the purchase of chloride flakes and a spreader applicator (SC No. III.1).

EUTRUCKTRAFFIC

Truck traffic associated with this plant is limited to trucks bringing in limestone or sand material from off-site to be shipped out via ship or barge, which is not very frequent. Vehicle traffic is mostly employee and vendor trucks as all product is shipped out by barge.

The company applies water and calcium chloride as needed to maintain fugitive emissions to a minimum. The facility maintains receipts for calcium chloride applications by a local contractor and the purchase of chloride flakes and a spreader applicator (SC No. III.1)

EUSTORAGE

The native mined sand typically has a high moisture content and most of the processes at the facility are wet operations. I did not observe any visible emissions from the surge storage pile; all other sand piles are stored inside (SC No. I.1). The process/storage buildings on site do not have the capacity to store 1,000,000 tons of material at any given time (SC No. II.1).

Based on observations the facility is complying with the Nuisance Minimization Plan for Fugitive Dust in Appendix A of their permit (SC No. III.1).

CONCLUSION: Residual moisture in the material controls dust on the conveyors and the company maintains water sources and calcium chloride to control dust from material storage piles, the plant yard and roadways at the facility. I did not observe any fugitive dust concerns during my inspection.

At the time of my inspection the facility appeared to be in compliance with Michigan Air Pollution Control Rules and the applicable conditions of PTI .

NAME Joe Scanlan EGL DATE 1/21/21 SUPERVISOR EGL