

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

N671759331

FACILITY: A LINDBERG & SONS INC #48-99		SRN / ID: N6717
LOCATION: Plant #5 CRUSHING PLANT #48-99, ISHPEMING		DISTRICT: Marquette
CITY: ISHPEMING		COUNTY: MARQUETTE
CONTACT: DOUG SICOTTE , PLANT FOREMAN		ACTIVITY DATE: 07/22/2021
STAFF: Joe Scanlan	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MINOR
SUBJECT: Announced inspection to determine compliance with PTI# 48-99. Plant is located at the Tilden Mine.		
RESOLVED COMPLAINTS:		

## REGULATORY AUTHORITY

Under the Authority of Section 5526 of Part 55 of NREPA, the Department of Environment, Great Lakes, and Energy may upon the presentation of their card, and stating the authority and purpose of the investigation, enter and inspect any property at reasonable times for the purpose of investigating either an actual or suspected source of air pollution or ascertaining compliance or noncompliance with NREPA, Rules promulgated thereunder, and the federal Clean Air Act.

## FACILITY DESCRIPTION

A. Lindberg & Sons, Inc. (ALS) provides civil construction services including site development, road construction, utility infrastructure projects, and rock crushing, screening and washing. ALS is the largest aggregate and stone producer in the Upper Peninsula (UP). The company is headquartered in Ishpeming, Marquette County, and has multiple aggregate pits and portable crushing facilities throughout the UP. Aggregate is used for concrete and asphalt mixes, road gravel and subbase, foundation stone, erosion control, and architectural/landscaping purposes.

SRN N6717 is one of the ALS portable non-metallic crushing plants and is permitted under PTI# 48-99. This crushing plant is permanently located at the Tilden Mine, in Tilden Township, Marquette County. ALS is contracted by Cliffs Resources to maintain road surfaces within the mine property utilizing crushed native waste rock. N6717 operates all year long, including throughout the winter months, and produces more tons of crushed aggregate and PM emissions than any other ALS crushing plant.

## PROCESS DESCRIPTION

A crushing plant produces smaller size aggregate from larger size rock. The final product can be used for a variety of applications from infrastructure projects to residential landscape purposes. A crushing plant can consist of loaders, haul trucks, generators, crushers, screens, conveyors, and stockpiles. The plant is normally located within a quarry, crushing stone that was generated from blasting. The process begins with large size rocks being fed into the primary crusher via loader, producing an initial size product. From the primary crusher, the product can be conveyed into a screen plant that separates the crushed aggregate into various sized products. Smaller size material is filtered out and leaves on separate conveyors to stockpiles, while larger size material continues into the secondary crusher. A secondary crusher will break the aggregate down into smaller sizes before it enters the screen plant again or continues down the line to a tertiary

screen and crusher. A crushing plant may have several crushers, screens, and conveyors depending on how many sizes of aggregate are to be produced.

#### EMISSIONS

Stone crushing and processing operations can cause point and fugitive emissions of PM, PM10, and PM2.5. Emissions from process operations should be considered fugitive unless the source of emissions is vented through a force-air vent or stack. Fugitive sources of emissions are generated from machine movement and wind erosion. Emission sources can include hauling, crushing, screening, and transferring of material. The primary factors affecting PM emissions are wind and moisture content of the material. Spray bars on crushers and screens, along with the use of dust suppressants on roadways reduces fugitive dust emissions from activity by 60% to 85%. Moisture on the surface of the material can cause fine particles to adhere resulting in a dust suppression effect

#### EMISSIONS REPORTING

The facility has reported the following emissions to MAERS:

YEAR	THROUGHPUT (tons)	PM10 EMISSIONS (lbs)
2020	712,000	7,120
2019	878,797	8,787
2018	897,225	8,972
2017	931,887	9,318
2016	870,913	8,709
2015	812,309	8,123
2014	673,770	6,737

This portable non-metallic crushing plant uses water spray bars on crushers/screens and water trucks in the general work area and on haul roads to suppress fugitive dust emissions. All PM10 emissions are calculated using a control efficiency of 80%.

#### COMPLIANCE HISTORY

There is no history of inspections performed at this facility and no violation notices have been issued.

**REGULATORY ANALYSIS**

N6717 is a portable non-metallic crushing plant permitted under a general PTI# 48-99 with a single Flexible Group FGCRUSHING.

New or additional equipment that is subject to the federal NSPS Subpart OOO, which has not been previously tested, shall comply with the testing requirements of the NSPS.

Equipment permitted under PTI# 48-99 includes:

EQUIPMENT ID	YEAR/MAKE/MODEL	NSPS SUBPART OOO TEST
PC-08 Primary Crusher	AC 3248	06/07/2007
CC-16 Cone Crusher	2012 CS 440 Sandvik	09/07/2012
CC-12 Cone Crusher	HP 400	12/11/2007
CC-13 Cone Crusher	1560 Cone	10/25/2007
CC-15 Cone Crusher	HP 400	05/14/2010
CC-16 Cone Crusher	CS 440	09/07/2012
SP-08 Screen Plant	6x20 Tandem Svedela	06/07/2007
SP-16 Screen Plant	6x20 Cedar Rapids	05/27/2019
RS-09 Radial Stacker	unknown	06/07/2007
RS-10 Radial Stacker	36"x50' Superior	10/26/2007
RS-12 Radial Stacker	42"x60' Superior	06/07/2007
RS-18 Radial Stacker	Unknown	10/25/2007

CV-10 Conveyor	42"x46' Allis	06/07/2007
CV-13 Conveyor	36"x60' Kolberg	10/26/2007
CV-14 Conveyor	36"x50' Kolberg	06/07/2007
CV-15 Conveyor	36"x60' Lindberg Shop	10/25/2007
CV-37 Conveyor	36"x60' Superior	06/07/2007
CV-39 Conveyor	42"x40' Superior	06/07/2007
CV-51 Conveyor	24"x45' Lindberg Shop	10/10/2007
CV-64 Conveyor	36"x50' Kafka	10/25/2007

#### INSPECTION

N6717 has been reported as located at the Tilden Mine for over the last 10 years. Because the facility is located at the Tilden Mine and due to Covid-19 protocols, I announced my intent to inspect the facility to ALS and Tilden employees the day prior to my arrival.

I was met at the Tilden Mine security gate by facility operator Mr. Doug Sicotte, who escorted me to the crusher site. The crushing plant was in operation at the time of my inspection and Mr Sicotte and myself walked around the work area and inspected each piece of equipment.

The following equipment was on site during the inspection:

EQUIPMENT ID	YEAR/MAKE/MODEL	NSPS SUBPART OOO TEST	PTI#
PC-09 Primary Crusher	Nordberg(C125)3749	10/15/2007	456-99
CC-11 Cone Crusher	HP 400	10/17/2007	456-99
CC-16 Cone Crusher	2012 CS 440 Sandvik	09/07/2012	48-99
SP-08 Screen Plant	6x20 Tandem Svedela	06/07/2007	48-99

RS-09 Radial Stacker	unknown	06/07/2007	48-99
RS-10 Radial Stacker	36"x50' Superior	10/26/2007	48-99/83-99
RS-12 Radial Stacker	42"x60' Superior	06/07/2007	48-99/83-99
RS-13 Radial Stacker	36"x100' Kolberg	07/08/2009	83-99
CV-13 Conveyor	36"x60' Kolberg	10/26/2007	48-99/417-99
CV-37 Conveyor	36"x60' Superior	06/07/2007	48-99/83-99
CV-38 Conveyor	42"x40' Superior	10/15/2007	456-99
CV-39 Conveyor	42"x40' Superior	06/07/2007	48-99/83-99
CV-51 Conveyor	24"x45' Lindberg Shop	10/10/2007	83-99
CV-61 Conveyor	36"x60' Superior	10/15/2007	456-99
CV-65 Conveyor	*This unit was supposedly	Scrapped*	????

\* per updated equipment list in email from Reed Alderton 10/17/2017

The facility had produced approximately 455,000 tons of crushed aggregate since the beginning of 2021.

All crushing and screening equipment had water spray bars in place, however I did notice fugitive dust emissions coming from the primary and cone crushers that were approaching the 15% opacity limit. Mr. Sicotte explained this was likely due to low water pressure and that a higher capacity water pump is scheduled to be installed during either this year or in 2022. At this time the fugitive emissions are within permit limits and no fugitives from the crushing plant are leaving the Tilden Mine property, however the company should plan to upgrade the pump as soon as they are able.

#### COMPLIANCE

The company is associating SRN 6717 with a primary crusher (PC-09) and a cone crusher (CC-11) that are permitted under SRN N6725. A second cone crusher (CC-16) is permitted under the SRN N6717. A crushing facility is associated with the SRN the primary crusher is permitted under;

in this instance the company should be associating the facility located at the Tilden Mine with SRN N6725 since the primary (and a secondary cone crusher) are permitted under this SRN.

The facility is currently in violation of their Non-Metallic Mineral Crushing Plants General PTI # 48-99 conditions 1.12(a) & (d):

*1.12 The permittee shall not replace or modify FGCRUSHING, or any portion of FGCRUSHING, including control equipment, unless all of the following conditions are met:*

*a) The permittee shall update the general permit by submitting a new Process Information Form (EQP5756) to the Permit Section and District Supervisor, identifying all existing and new or additional equipment added to the process a minimum of 10 days before the equipment is replaced or modified.*

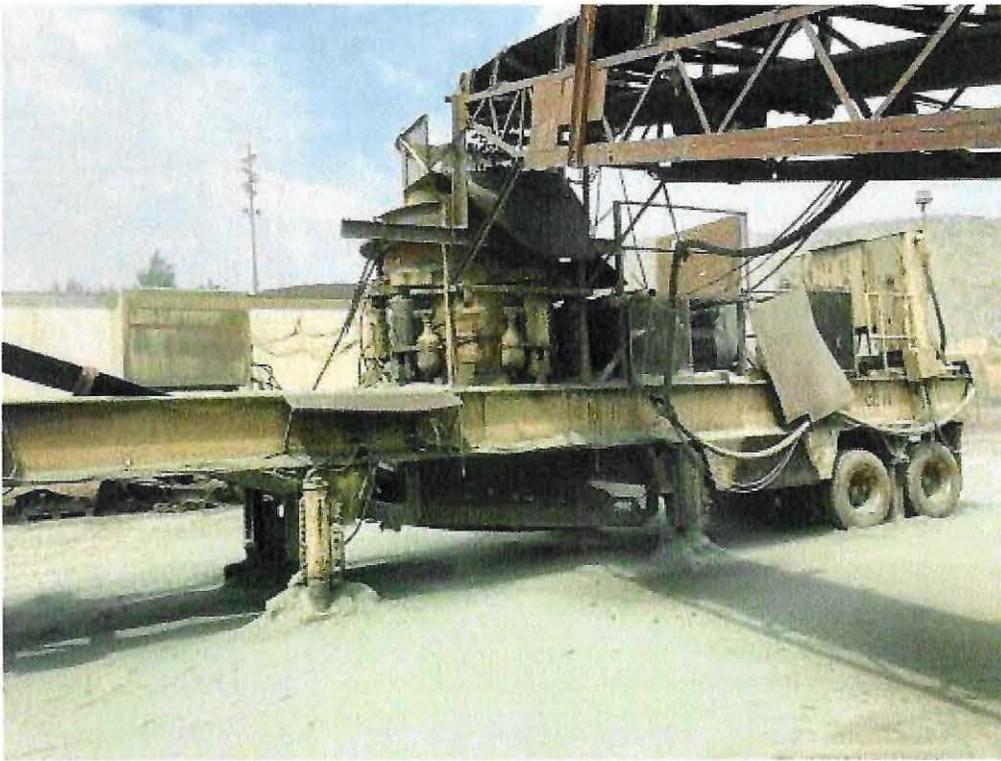
*d) The permittee shall notify the Air Quality Division, within 15 days after startup of any new or additional equipment, of the actual date of initial startup.*

In addition, although the company has been reporting emissions to MAERS for both PTI# 48-99 and 456-99, the emissions are being reported incorrectly. The emissions are associated with wrong SRNs.

The company must correct the violation by associating the correct SRN with the correct primary and cone crushing equipment or modify existing PTI's to include additional primary and cone crushing equipment.



**Image 1(ALS1) :** PC-09 Permitted under SRN 6725 PTI#456-99



**Image 2(ALS2) :** CC-11 Permitted under SRN 6725 PTI# 456-99



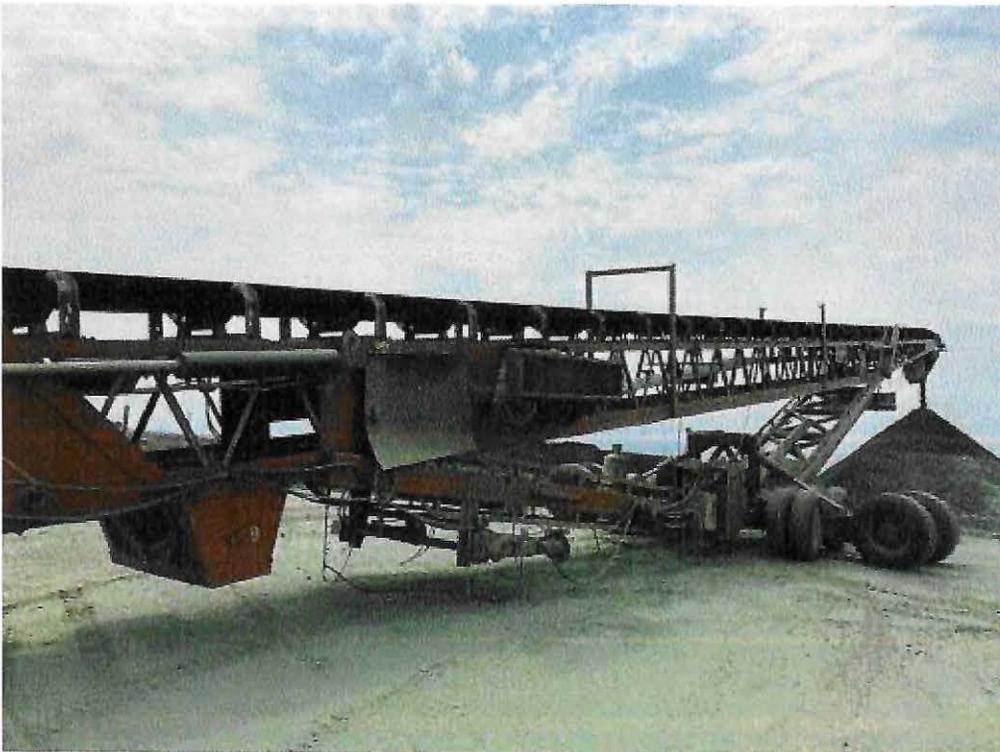
**Image 3(ALS3) :** CC-16 Permitted under SRN 6717 PTI# 48-99



**Image 4(ALS4) :** SP-08 Screen Plant



**Image 5(ALS5) :** RS-12 Radial Stacker



**Image 6(ALS6) :** RS-09 Radial Stacker



Image 7(ALS7) : RS-13 Radial Stacker



**Image 8(ALS8) :** RS-10 Radial Stacker



**Image 9(ALS9) :** CV-39 Conveyor



Image 10(ALS10) : CV-13 Conveyor



**Image 11(ALS11) :** CV-37 Conveyor



**Image 12(ALS12) :** CV-61 Conveyor



**Image 13(ALS13) :** CV-51 Conveyor



**Image 14(ALS14) :** CV-65 Conveyor

NAME J. Scanlan  
by E.J.H.

DATE 9/27/21

SUPERVISOR E.J.H.