

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

N126628445

FACILITY: HILLMAN POWER CO		SRN / ID: N1266
LOCATION: 750 PROGRESS ST, HILLMAN		DISTRICT: Gaylord
CITY: HILLMAN		COUNTY: MONTMORENCY
CONTACT: Robert Havermahl,		ACTIVITY DATE: 02/03/2015
STAFF: Bill Rogers	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

On February 3, 2015, I inspected Hillman Power during a stack test. Mr. Robert Havermahl coordinated between the testing crew and Hillman Power, and showed me around. Mr. Jim Utecht, Maintenance Supervisor and Acting Plant Manager, met us and answered questions about plant operation in the control room, among other places.

I did not find any violations during the inspection. For that reason I will enter compliance status as in compliance for this report. However the facility is still involved in an enforcement action with AQD because of a failed stack test for Particulate Matter and because of confirmed fallout complaints, both last summer.

The facility is operating under Renewable Operating Permit MI-ROP-N1266-2015, issued January 8, 2014.

In this permit's Source-Wide Conditions table, Condition III.1 requires a fugitive dust program for the facility. During on site visits last summer I observed dust suppressants had been applied, and confirmed records of applications were available, but during this visit the ground was frozen and covered with snow and ice. Therefore this condition can't be checked at this time.

In table EUBOILER, Condition I.1 sets a 10% opacity limit. I did not take formal opacity observations but from off site opacity appeared to be zero. Opacity monitor records, attached, show opacity running in the 0 to 2% range. This corresponds with what I observed on the opacity monitor when I was on site. This complies with the opacity limit.

Condition I.6 sets a SO₂ limit of 50 pounds per hour on a 24 hour average, and 100 pounds per hour based on a 3 hour block average. During the test Hillman Power was attempting to run a high rate of Tire Derived Fuel, which is the source of much of the sulfur. Based on the attached data, sulfur averaged 46.87 pounds per hour during the time of the test. This complies with the permit condition.

Condition I.12 sets a NO_x limit of 60 pounds per hour based on a 30 day rolling average. Based on the attached data, during the test NO_x averaged about 49.23 pounds per hour. This complies with the permit condition.

Condition I.16 sets a CO limit of 120 pounds per hour based on a 24 hour daily average. Based on the attached data, during the test CO averaged about 92.7 pounds per hour. This complies with the permit condition.

Condition II.1 limits tire derived fuel (TDF) to 5000 pounds per hour, based on a 24 hour average. This is equivalent to 60 tons per day. During the test Hillman Power burned on average 1.72 tons of TDF per hour, according to figures supplied to me by Mr. Havermahl. This is equivalent to 3440 pounds per hour. This complies with the permit condition. Mr. Havermahl commented that the conveyor through which they feed TDF has limited capacity, and it would be difficult for them to feed more TDF than they were feeding that day.

Condition III.2 prohibits burning "treated lumber" containing any of various preservatives. The wood chip piles on site appeared to be whole tree chips. I didn't see any demolition material on site. Demolition material would be where I would expect to find any treated lumber.

Condition III.2 requires the multiclones, electrostatic precipitator (ESP), and Selective Non-Catalytic

Reduction systems to be installed and operating properly. These devices were all in place and appeared to be in good condition.

Condition VI.1 requires a COM. Condition VI.2 requires SO₂, NO_x, and CO monitors. Condition VI.3 requires an O₂ monitor. All these were in place in the CEM building. They appeared to be operating properly.

Condition VI.6 requires keeping records of TDF burned as pounds per hour based on a 24 hour average, by month, and by calendar year. These records are being kept as required.

Condition VI.7 requires keeping records of natural gas and wood burned for each calendar day. These records are being kept as required.

Condition VI.8 requires calculating SO₂, CO, and NO_x emissions from the boiler for each month and per 12 month rolling time period. This is required at the end of each calendar month. Their computer program is set up to calculate 12 month rolling time period emissions at the end of each calendar day. It also calculates emissions for each calendar day individually. I consider this adequate to meet the permit conditions. Some example data from their data collection system is attached.

Condition VIII.1 requires the stack have a maximum diameter of 72 inches and a minimum height of 142 feet. The stack appeared to meet these conditions. It exhausts unobstructed vertically upward as required by the permit.

For material handling, table FGMATLHANDLING, Condition I.1 sets a limit of 5% opacity for material handling operations. I didn't see any dust or opacity from material handling operations on the day of my inspection.

The cold cleaners, FGCOLDCLEANERS, appear to be of the common mineral spirit type. In previous inspections I saw two of these. This time I only saw one, but the other had been in a workshop I didn't visit, so it might still be present. The cold cleaner I saw was not in use and was closed as required.

COMMENTS:

The plant appears to be unchanged from previous inspections.

The plant was operating at about 19.8 MW, gross. This is a higher rate than normal. The company was attempting to run as close to full capacity as possible in order to demonstrate compliance with their particulate limit under maximum operating conditions.

The electrostatic precipitator was operating at the time of my inspection. I took readings of its digital TR readouts several times during the stack test. A representative set of readings is below. A complete list of the readings I took will be included in a separate stack test observation activity report.

Field	V	A	KW	KV1	KV2	mA	sparks/min	arcs	temperature
inlet	175	10	200W 2	42	0	109	43	0	80
mid	203	14	200W 1	30	0	43	51	0	69
outlet	166	19	200W 2	34	0	93	19	0	71

At 9:40 in the CEMs shed SO₂ was 85 PPM, NO_x 132 PPM, CO 158 PPM, opacity 0.3%.

At about 9:00 plant output was 19.9 MW gross, 18 net.

Mr. Havermahl and Mr. Utecht both told me the electrostatic precipitator had been completely rebuilt before this test. The company had tried more limited repairs but they didn't fix observed problems, so they tried more extensive work. I noticed a large pile of plates which I believe to be electrostatic precipitator plates as scrap metal to be removed from the site, which supports their statement.

The plant appears to be well maintained.

NAME William J Rogers Jr

DATE 2/5/2015

SUPERVISOR 

