

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

N670748963

FACILITY: Asahi Kasei Plastics North America, inc.	SRN / ID: N6707
LOCATION: 900 E. Van Riper Rd., FOWLERVILLE	DISTRICT: Lansing
CITY: FOWLERVILLE	COUNTY: LIVINGSTON
CONTACT: Kurt Ray, Environmental Health and Safety Leader	ACTIVITY DATE: 04/04/2019
STAFF: Samantha Braman	COMPLIANCE STATUS: Compliance
SOURCE CLASS: SM OPT OUT	
SUBJECT: Scheduled, unannounced inspection to determine compliance with PTI No. 74-05.	
RESOLVED COMPLAINTS:	

N6707 - Unannounced, scheduled inspection of Asahi Kasei Plastics North America, Inc. to determine compliance with their Permit to Install (PTI) No. 74-05.

Environmental Contact:

Nancy Smith has retired and is no longer the Environmental Contact. The new contact is Kurt Ray, Environmental Health and Safety Leader; 517-223-5121; kray@akplastics.com

Facility Description:

Asahi Kasei Plastics is a manufacturer of Engineering Thermoplastics. They purchase plastic pellets as a raw material, and mix the pellets with colors and other chemical compounds for other qualities such as UV protection, flame retardant, etc. The blends are then melted and extruded into narrow plastic strands, which are cooled in water, and then chopped back into pellets. The plastic materials are controlled by dust collectors. The facility runs 24 hours per day, 7 days per week, with two 12-hour shifts.

Emission Unit	Permit or exemption or federal rule	Compliance Status (Y/N)
Extrusion lines 1-6	74-05; Rule 286(a)	Y
Extrusion line 7; Quality Assurance lab	74-05; Rule 286(a)	Y
Extrusion line 8 (Research and Development)	Rule 286(a)	Y
Extrusion lines 10-11	74-05; Rule 286(a)	Y
Extrusion line 12	Rule 286(a)	Y
Oven, natural gas fired	Rule 290	Y
Pump room	Rule 285(d)	Y
Diesel fuel fired emergency generator	Rule 285(g) 40 CFR Part 60, Subpart JJJJ	Y
Water heater	Rule 282(b)(i)	Y

Regulatory Overview:

The facility has multiple Rule 286 exemptions for plastic processing equipment. Based on the number of plastic extrusion lines it has, the facility acquired PTI No. 74-05, which is a synthetic minor permit. The limits in the PTI limit the facility's Potential to Emit (PTE) so that it doesn't become a major source for Volatile Organic Compounds (VOCs) or for Hazardous Air Pollutants (HAPs).

Location:

Located in Fowlerville, the Asahi Kasei facility is at the east end of an industrial park, immediately north of I-96.

Safety Equipment:

Asahi is very dedicated to safety in the workplace. Personal protective equipment (PPE) required is steel-toe boots, hardhat, safety glasses, earplugs, long sleeve shirts, and long hair tied back.

Inspection:

Dan McGeen, AQD inspector; Mike Depa, toxicologist; and I arrived at the facility around 9:30am. There was a slight plastics odor upon our arrival. There were no visible emissions. EHS Leader Kurt, met us in the

Maintenance Department. Kurt gave us a thorough safety briefing before heading out on the tour of the facility.

A general description of the extrusion process:

1. Upper level à Raw material comes into the facility in bulk, through a rail system, and pumped to silos (15 storage silos on site).
2. Mezzanine à raw material and other chemical compounds are added to the hopper and mixed together.
3. Ground level à electrically heated extruders to stretch the plastic, water bath to cool, and ran through a machine to cut into pellets.

260 million lbs per year are made. The labs test for quality, and they have a product stewardship team for material development.

The facility currently has 11 extrusion lines. Lines 1-8, 10,11, and 12. Lines 8 and 12 were installed in 2011 under Rule 286(a) exemption.

Lines 1-6 are on the South side of the plant and are controlled by three baghouses which exhaust back inside the plant.

Pressure drop for the baghouse that services lines 1-3 was at 3" w.c.

Pressure drop for the baghouse that services lines 4 and 5 was at 2.5" w.c.

Pressure drop for the baghouse that services lines 6 and 7 was at 2" w.c.

The PM dust system filters are changed as needed. When the pressure reaches 5", they order new filters and when the pressure reaches 6" they replace the filters. They are bag filters with a blow down and the barrels of waste are emptied and cleaned daily. They are also on a semi-annual cleaning where they shut them down and have a third party come in and clean it out and take airflow readings. When we went outside to take a look at the filters we noticed a strong plastic odor as we were heading back to go inside.

The hoppers located on the upper level where raw material is added are routed to the dust collectors. This is for good housekeeping, quality assurance so no cross-contamination occurs, and for worker safety.

The dye units exhaust vents to the atmosphere, but it first goes through a Herding filtration system which pulls out solids such as dust. The stacks are serviced, and the two parallel carbon filters are changed every 3 years. The pressure drop was at 2" during our visit.

Other:

-Old boiler on site is gone and they now have a high efficiency water heater with a 100 gal capacity. Exemption 282(b)(a)

-The natural gas-fired oven on site is used to clean plastic off metal parts, it is used as needed which is usually around a couple times a week. Back in 2013 the company submitted a Rule 290 exemption demonstration.

-There is a small parts washer on site that uses an aqueous solution, no solvents.

-There is a small diesel engine for fire suppressant. Exemption Rule 285(g) for this unit requires it to have capacity of less than 10,000 btu/hr. This is also subject to 40 CFR Part 60, Subpart JJJJ.

-The natural gas-fired emergency generator that was present during the last inspection has since been removed.

We left the site at 12:45pm.

Records Review:

Kurt provided me with a spreadsheet documenting individual Hazardous Air Pollutants (HAPs) VOCs and particulate, monthly production throughput by production line, and VOCs emitted per year for the 2018 calendar year. This document is attached to the hard copy of this report. Below is a summary of the emissions reported.

Pollutant	Permit Limits per PTI No. 74-05 (tpy)	Actuals (tpy)
VOCs	Less than 75	39.2
Individual HAP	Less than 9	0.57 (highest individual HAP used)
Aggregate HAPs	Less than 22.5	1.06

Based on the data provided, Asahi Kasei is in compliance with the emission limits in PTI No. 74-05.

Conclusion:

Asahi Kasei appears to be in compliance with their PTI No. 74-05 and all other state air quality regulations.

NAME *James H. Brown* DATE 6/19/19 SUPERVISOR *B M*