

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

P045928053

FACILITY: JSP SHEET FOAM LLC		SRN / ID: P0459
LOCATION: 4335 COUNTY FARM ROAD, JACKSON		DISTRICT: Jackson
CITY: JACKSON		COUNTY: JACKSON
CONTACT: Chris Hollihan , Project Engineer		ACTIVITY DATE: 11/20/2014
STAFF: Sersena White	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Unannounced targeted inspection of brand new facility with permit to install 120-13 issued on October 25, 2013.		
RESOLVED COMPLAINTS:		

SRN: P0459

Facility Name: JSP Sheet Foam, LLC

Facility Location: 4335 County Farm Road, Jackson, MI 49201

Facility Contacts: Anthony Filip- Site Manager, Robert W. Stevens- Vice President, Manufacturing and Engineering, Todd Mauk- Facilities Maintenance Manager, Jennifer D. Bair, PHR- Human Resources Manager, Chris Hollihan – Project Engineering Manager (not present during inspection)

Facility Contact E-mail address(s): Anthony Filip- Anthony.Filip@jsp.com, Robert W. Stevens- Bob.Stevens@jsp.com, Chris Hollihan – Chris.Hollihan@jsp.com

Purpose: This inspection was to evaluate compliance with the New Source Review permit that was issued on October 25, 2013 and to determine compliance with Federal and State Air Quality regulations.

Introduction: On November 20, 2014, an unannounced targeted inspection was conducted at JSP Sheet Foam, LLC, located at 4335 County Farm Road, Jackson, MI.

I arrived at the first building that had JSP's name associated with it at approximately 9:25 a.m. I introduced myself to the receptionist and explained that I was there to conduct an inspection based upon the recent permit that was issued. She contacted Todd Mauk, the Facilities Maintenance Manager, whom she thought would be able to assist me. In the meantime Jennifer Bair, thought that it would be good for her to accompany us on the inspection. After I was informed that the process that I needed to inspect was in a different building, Bob Stevens arrived in the lobby, and he also accompanied us on the inspection. We all got into our separate vehicles and drove over to the newest building, which is located northwest from this building.

In the building that I first entered, they make foam molds using steam. Some of their products are molded containers and Lego-type shapes according to Todd. This location has been owned by two other companies in the past. It was originally owned by Kaneka, then Maverick and now JSP. We left for the new building at approximately 9:39 a.m.

PPE: Steel toed boots/shoes, safety glasses and hearing protection only in the cabin of the oven, which is located on the floor level. I did not go inside the cabin. During the inspection, I was told that hearing protection is needed due to the vacuum that operates as part of the sheet foaming process.

Inspection Opening meeting: We entered the new building and met in the lunch room, since the conference room was in use. I had given some of them my card in the lobby of the main building. As I handed out the inspection brochures, I explained the outline of the brochure, covering the pre-inspection meeting to go over the conditions of the permit and learn about how the process works as it relates to the permit and what is not in the permit; conducting the inspection by making visual observations, and finally a wrap-up meeting after the inspection to summarize my findings.

This new building does not show up on the map that I printed out to locate the facility. This new building houses the sheet foam process (EUOVEN1) and the catalytic oxidizer (Cat-ox).

The plant is currently operating on a 10-12 hour per day, two to four days per week schedule. Production is on a limited basis now, and will only increase when there is a demand for more product. Bob Stevens explained some of the difficulties in getting the process into production mode, such as the threading of the material into the process; making sure the Cat-ox would continue to operate when the oven is operating; and ensuring the individual mechanical, electrical, other critical components of the process equipment would work together as designed. He explained that this process could not be tested by the manufacture due to the size and the nature

of the process. He also said that this process works best when able to remain running as long as possible due to the demand for continuous heat in both the oven and the Cat-ox. Both the oven and the Cat-ox have electronic monitoring screens to display data real-time while in operation.

Visual Observation of the process: Permit 120-13 is for EUOVEN1 described in the permit as a foaming process in which rolls of polyolefin material (matrix webs) are converted into foam. The rolls are processed as is, and no chemicals or catalyst are added to the rolls at the facility. The webs are first preheated with natural gas burners to obtain an even temperature, and then travel through the foaming portion of the oven at higher temperature. The reaction occurs by releasing gases which form closed cells, thus converting the matrix into flexible, soft foam. Emissions are controlled by a catalytic oxidizer.

After gaining a better understanding of the mechanics of how the process operates, we went into the area where the oven and Cat-ox were operating. The preheater section of the oven utilizes forced hot air and the foaming portion of the oven forced hot air and electric infrared heat.

The oven is a top down process where the raw material purchased from another JSP company in the Detroit area is spool fed into the oven's series of rollers. As the raw material is fed through the process, it is gradually heated to expand the size of the foam until it is a finished product spooled on to a cardboard core. The excess is trimmed during the finishing process so that the finished product is uniform in shape and size. The amount of trim and the final product are weighed as part of the permit requirements to track throughput. The permit was issued with limits that will accommodate one oven with the Cat-ox sized to control emissions from all four ovens. The weight of the core and the dolly used to move the finished product are subtracted from the total weight displayed on the digital scale located on the floor. The scale does get calibrated in order to ensure accuracy for business purposes. The main parameters monitored for both the oven and the Cat-ox is temperature and air flow.

Temperature monitoring is digitally displayed on both the Cat-ox and the oven. The permit requires the Cat-ox to operate at a minimum inlet temperature of 590 degrees Fahrenheit and the outlet temperature only has to be monitored. Heat is applied to the catalyst in order for the emissions control to be effective. The temperature of the Cat-ox at the time of the inspection was inlet: 597 and outlet 603 degrees Fahrenheit. I was told that the temperatures are recorded on daily records. The records indicate that the Cat-ox began temperature recording on November 12, 2014.

The permit requires temperature readings at equally spaced intervals not to exceed 15 minutes. Based upon the data, readings are made 5 to 6 times per minute, which complies with the requirement of the permit.

Recording of weight is first made on a sheet of paper before being given to Production and Accounting for final verification and tracking. Material processed began being tracked on October 23, 2014. The process was in trial operation at this time and still is according to the official start of business date of January 2, 2015.

The permit requires a malfunction abatement plan (MAP) be submitted within 90 days of permit issuance. JSP submitted an initial MAP to meet the required time deadline, even though all of the process was not operating. I worked with Chris Hollihan in developing the MAP to meet AQD requirements. The latest copy received was taken as part of the documentation for the inspection and I gave it to Bob so that he could have a current version.

We discussed a permit revision to address the use of the bypass stack during Cat-ox malfunctions, because the current permit does not allow the use of the bypass stack even though it is listed in the stack/vent restrictions. At this time the bypass stack is only used upon oven heat up and cool down when no product is in the oven.

I asked if the stack met the permit requirement and Bob said that he would confirm the dimensions and let me know. On December 17th the stack information was received. The stack is 48" in diameter at a height of 68.4' from the ground which meets the permit requirements. The height of the stack was calculated by adding all of the system components together.

Inspection follow-up:

On November 20th after returning to the office, I sent an e-mail asking about the circumstances of the Cat-ox failures and what happens to the heat/air that remains in the process. On November 24th I requested records of material throughputs, continuous temperature monitoring and malfunctions that have occurred.

On December 4th, I received the records and description of the malfunctions that had occurred. The official production is planned to begin January 2015. The records show that continuous inlet Cat-ox temperatures are being monitored; the Foam Production Logs are being transferred from hard copy to computer as stated during the inspection. Since they have only recently begun to operate, 12 month rolling records will not be available until after 13 months of operation.

Malfunctions of the Cat-ox occurred on October 22, 27 and November 18, 2014 prior to material entering the oven. All of the faults were eventually corrected and there has been no re-occurrence of faults since.

The malfunctions of the Cat-ox all occurred prior to material entering the oven, therefore there were no emissions to be concerned about as it relates to the controlled Cat-ox and/or uncontrolled emissions exhausting out of the bypass stack.

Conclusion: Based upon the records and information received about the Cat-ox malfunctions, JSP appears to be operating in compliance with the requirements of Permit to Install 120-13.

JSP is currently revising their permit to install to allow the process to operate without the Cat-ox utilizing the bypass stack for a specified limit on the duration and frequency.

I left the facility at approximately 10:55 a.m.

Attachments: E-mail response to inspection follow-up addressing - Cat-ox faults, official production start date and production logs (separate file). The large amount of temperature data (separate file) was copied to a CD and put in the file. Information about Maverick, a previous owner and product line description. Information about JSP's product line. A sample of the hard copy production tracking log.

NAME *Susan M White* DATE *12-17-2014* SUPERVISOR *[Signature]*

