

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

N032925911

FACILITY: Z TECHNOLOGIES CORP		SRN / ID: N0329
LOCATION: 26500 CAPITOL AVENUE, REDFORD TWP		DISTRICT: Detroit
CITY: REDFORD TWP		COUNTY: WAYNE
CONTACT: Ellis Breskman , President		ACTIVITY DATE: 07/10/2014
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: 2014 Targeted Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection
 INSPECTED BY: Todd Zynda, AQD
 PERSONNEL PRESENT: Ellis Breskman, Director; Wayne Hall, Plant Manager
 FACILITY PHONE NUMBER: 313-937-0710
 FACILITY FAX NUMBER: 313-937-1470
 FACILITY WEBSITE: <http://www.ztechcoatings.com/>

FACILITY BACKGROUND

Z Technologies Corporation (Z Tech) is located at 26500 Capitol Avenue, Redford, Michigan. The facility is a chemical batch processing plant that manufactures coatings and sealants for the automobile industry, marine equipment, oil and gas industry and other specialty products. The primary use of the sealants produced is to protect the surface of coated materials. The facility is located in an industrial area, west of Beech Daly Road and south of the C & O Railroad line in Redford. Residential areas are located immediately adjacent to the south. A public park is located immediately adjacent to the west of the facility.

Z Tech currently has 30 full time employees. Operations are conducted during two shifts that span from 5 AM to 10:30 PM.

Z Tech was issued Title V Opt-Out Permit (Permit to install [PTI] 184-97A) on June 26, 2008. PTI 184-97A limits the facility's potential to emit (PTE) of hazardous air pollutants (HAPs) to less than 8.9 tons per year (tpy) for any individual HAP, and 25 tpy for all HAPs combined.

PROCESS OVERVIEW

Z Tech produces coatings and sealants by mixing solvents with solid components to produce a desired chemical composition of a product. During the mixing process, chemical reactions may occur which requires heat or the release of heat. Some mixing tanks are either covered and sealed or pressurized to with stand elevated temperatures or high/vacuum pressures. The production rooms are equipped with a central air ventilation system that captures process related volatile organic compound (VOC) emissions and exhausts uncontrolled to ambient air through a stack located on the roof.

The facility also operates a 5 million British thermal unit per hour (MMBtu/hr) natural gas fired boiler which provides steam for batch vessels.

COMPLAINT/COMPLIANCE HISTORY

During June 2007, the facility was inspected and determined to be in noncompliance with several special conditions within PTI 184-07. A Letter of Violation (LOV) was issued for violations of permit record keeping requirements, Rule 287(c)/Rule 201, and Rule 210. As a result, the company submitted a PTI application and was issued permit to install 184-97A to operate as a synthetic minor source. The company also began to maintain the required permit records.

During July 2011, the facility was inspected was determined to be in compliance with PTI 184-97A.

OUTSTANDING CONSENT ORDERS

Z Tech was issued a Stipulation for Entry of Final Order by Consent, AQD No. 7-2009 on June 29, 2009. The company was notified on July 17, 2014 via phone and email (Attachment A), that the Consent Order can be terminated through a request in writing to AQD Chief.

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On July 10, 2014 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda conducted a level 2 unannounced inspection of Z Tech located at 26500 Capitol Avenue, Redford, Michigan. During the inspection, Mr. Wayne Hall, Plant Manager provided information and tour of facility operations relating to air quality permits. Mr. Ellis Breskman provided additional information and the required records for Z Tech emissions. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, and PTI 184-97A. Z Tech is permitted for the operation of flexible chemical batch processing plant.

At 2:00 PM, AQD staff arrived in the area and performed outside observations. Opacity was not observed from any stack located on the facility building. Additionally, odors were not observed on adjacent properties to the facility.

At 2:00 PM AQD staff entered the facility, stated the purpose for the inspection, and was greeted by Mr. Wayne Hall, Plant Manager. The inspection began with a facility tour. An equipment inventory was used as a guide for inspection of the facility.

The inspection began with the observation of the laboratory area where three laboratory work stations (two in service), three portable ovens (one in service), and two small heated salt baths used for corrosion testing were observed. The inspection continued at the maintenance area where a small sand blast enclosure was observed. Emissions from the sand blasting equipment are exhausted in the general in-plant environment. Following observation of the maintenance area, the application room was observed. The application room contains an eight foot by eight foot spray booth with filters in place. According to Mr. Hall approximately 20 gallons of paint is applied a week.

The empty storage container area and the hazardous waste storage area were observed. Containers in the hazardous waste storage area appeared to be properly covered and secured.

During the inspection the reactor/mixing tanks and holding tanks were observed. The upper level of the facility contains the mixing/reactor tanks. The first floor contains additional mixing/holding tanks. During the inspection the lids were closed on mixers, reactors, and holding tanks. During the inspection dried materials (spilled) were observed on the floor of the second level near the mixing containers. The ventilation hoods were observed that evacuate vapors from the mixing and discharge untreated to ambient air.

The tour concluded with observation of a 5 MMBtu/hr natural gas fired boiler which provides steam for batch vessels as necessary.

Following the tour/inspection of the facility, a meeting was held with Mr. Breskman. Mr. Breskman demonstrated that the records are maintained at the facility per PTI requirements. The required records were sent via email on July 10, 2014 (Attachment B). Additionally during the discussion with Mr. Breskman, the voiding of Wayne County Installation Permits C-10920 through C-10922 was discussed. Wayne County Installation Permits C-10920 through C-10922 were issued concurrently with PTI 184-97 (issued June 24, 1998). During the issuance of the PTI 187-97A, PTI 187-97 was voided as the equipment was covered by the new permit PTI 184-97A. Wayne County Installation Permits C-10920 and C-10922 should have also been voided at that time.

APPLICABLE RULES/PERMIT CONDITIONS

PTI 184-97A

The Special Conditions (SC) are listed as appropriate. For brevity, permit conditions and the language of federal and state rules have been paraphrased.

EUPROCESS

SC 1.1a. **IN COMPLIANCE.** VOC emissions shall not exceed 16 pounds per hour (pph). At this time, the AQD has not required stack testing to determine the VOC emission rate. Per the monthly summaries submitted the highest monthly VOC emissions since the last inspection occurred in May 2012 at 1.28 tons. Based on 241 hours of operation, the calculated average VOC emission rate was 10.62 pph.

SC 1.1b and SC 1.10. **IN COMPLIANCE.** VOC emissions shall not exceed 27.1 tons per year (tpy) based on a 12-month rolling time period as determined at the end of each calendar month. The highest 12-month rolling VOC emission occurred in January 2012 at 14.84 tpy.

SC 1.1c. **Unknown.** Particulate matter (PM) emissions shall not exceed 0.1 pounds per 1,000 pounds of exhaust gas. At this time the AQD has not required the facility to conduct PM testing.

SC 1.1d. **Unknown.** PM emissions shall not exceed 5.5 pph. At this time the AQD has not required the facility to conduct PM testing.

SC 1.2 and SC 1.9. **IN COMPLIANCE.** Shall not produce more than 2.260 million gallons of product per 12-month rolling time period. The maximum 12-month rolling gallons of product produced occurred in April 2012 at 1.239 million gallons.

SC 1.3 and SC 1.8. **IN COMPLIANCE.** Shall not manufacture product for more than 3,400 hours per 12-month rolling time period. The maximum 12-month rolling production hours occurred in January 2012 at 2,791.4 hours.

SC 1.4. **IN COMPLIANCE.** Shall not operate unless all applicable provisions of Rule 630 are met. During the inspection the facility appeared to be in compliance with Rule 630.

SC 1.5. **IN COMPLIANCE.** Shall handle all VOC and HAP containing materials (products, resins, solvents) in a manner to minimize the generation of fugitive emissions. All containers shall be covered at all times except when operator access is necessary. During the inspection all tanks were covered as required.

SC 1.6. **IN COMPLIANCE.** Shall capture all waste solvents and store them in closed containers. Waste material (hazardous waste) was stored properly in closed containers.

SC 1.7. **IN COMPLIANCE.** Shall equip process tanks with covers that completely cover all openings except those which are no larger than necessary to allow safe clearance for the mixer shaft. During the inspection all tanks were covered as required.

SC 1.11. **IN COMPLIANCE.** Stack SVPROCESS shall be a maximum 72 inches in diameter and a minimum 36 feet above ground surface. The stack appeared to meet the specifications in the permit.

FGFACILITY

SC 2.1a. and SC 2.2. **IN COMPLIANCE.** Emissions of each individual hazardous air pollutant (HAP) shall not exceed 8.9 tpy based on a 12-month rolling time period. The maximum total HAPs based on a 12-month rolling time period occurred in October and November 2013 at 0.2343 tons.

SC 2.1b and SC 2.2. **IN COMPLIANCE.** Emissions of total HAPs shall not exceed 22.4 tpy based on a 12-month rolling time period. The maximum total HAPs based on a 12-month rolling time period occurred in October and November 2013 at 0.2343 tons.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:


Not applicable. All lots are paved.

MAERS REPORT REVIEW:

The 2013 MAERS report was timely and complete.

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with PTI 184-97A and federal and state regulations. Wayne County Installation Permits C-10920 through C-10922 will be voided.

NAME 

DATE 7/29/14

SUPERVISOR W.M.