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MAY 16 2016

Air Quality Division  
Detroit Office

May 10, 2016

Mr. Todd Zynda  
Air Quality Division  
Michigan Department of Environmental Quality  
Detroit Field Office  
Cadillac Place  
3058 West Grand Boulevard, Suite 2-300  
Detroit, MI 48202-6058

**Subject: Notice of Violation (April 25, 2016) – VOC rolling 12 month limit**

**Tower Automotive – Plymouth, MI**

Dear Mr. Zynda:

Tower Automotive Operations I, LLC (Tower) is in receipt of a Notice of Violation (NOV) letter dated April 25th, 2016 in response to a site visit, by the MDEQ on Monday May 18th, at the Tower International facility located at 43955 Plymouth Oaks Boulevard in Plymouth, Michigan. The site visit was at the request of Tower in an effort to provide further details on the actions taken to mitigate potential odor sources causing concern in the community. During the site visit VOC emission logs for the e-coating line were provided at your request. Upon your review a NOV was issued as a result of the facility exceeding the rolling 12 month average for VCO as identified in the current air permit.

Please note that on February 11, 2016, the facility self reported to the MDEQ that VOC limits at the site were potentially expected to exceed the permit limit in the coming months and prior to the MDEQ issuance of a revised permit. The plant was in compliance with the VOC limit and had submitted a permit application prior to our voluntary self report.

Below you will find a chronological order of events summarizing the actions taken to prevent and mitigate VOC emissions exceeding the rolling 12 month limit of 12.1 TPY.

**Background:**

- 2/11/2016-PTI submitted to MDEQ
- 2/11/2016 – Voluntary disclosure of potential condition to exceed VOC limit in the existing permit submitted to MDEQ, the plant was in compliance at the time of the submission
- 2/24/2016 – MDEQ confirmed receipt of the permit application and placed in tracking system No 103-02C
- 3/3/2016 – E-mail from MDEQ (Dave Thompson) requesting the plant to draft a NMP – Odor Minimization Plan.
- 3/24/2016 – NMP submitted to MDEQ per request
- 3/29/2016 – E-mail from MDEQ (Dave Thompson) confirming receipt of NMP and begin discussion on approval process for proposed stack height and location change.
- 4/18/2016 – Tower requests on-site visit to provide additional details on completed and planned changes to the e-coat line to address odor concerns, and seek clarity on approval process for possible stack height, and location changes.
- 4/18/2016 – MDEQ provides direction on process to follow for stack changes and requests copy of emission source VOC log
- 4/25/2016 – NOV received at plant for VOC emissions exceeding permitted limit of rolling 12 month limit of 12.1 TPY, actual emissions February 12.57TPY, actual emission March 13.06TPY
- 05/02/2016 – Tower receives a response to the PTI submitted on 2/11/2016 (at which time the plant was in compliance with the rolling 12 month limit of 12.1 TPY. )
- 5/18/2016 – Due Date for comments on Draft Permit.

Please note that the actual emissions from this source are characterized as a minor source of VOC. Upon issuance of the new permit the plant will be in compliance which will satisfactorily resolve this administrative issue. I have also included a copy of the table of actions taken and planned to address the concerns of the community with regard to odor that will be subject of the scheduled call on May 17th at which time we will also review the comments Tower has on the draft permit due May 18th.

If you have questions regarding this matter please contact me at (419) 303-5776.



Mike Nieman  
Director EHS, Americas Operations  
Tower International

CC: James Pace - Tower  
Doug Barger - Tower

**TABLE 1 REV 01 - TOWER AUTOMOTIVE ACTIONS IN ELECTROCOAT**

<b>Review Wind &amp; Weather Conditions</b>		
<b>Actions</b>	<b>Status</b>	<b>Date Completed</b>
Cross-referenced dates provided by MEDQ AQD and times to their operations schedule and confirmed that E-coat line was operating at some time on day of each complaint.	Complete	1-15-16
Utilized available weather information to attempt to correlate wind direction and speed on days of complaints. Considered a generic review as wind speeds and directions may vary from weather station data, given distance from site and geographical differences. Wind direction and speed were considered because MDEQ AQD reported complaints are mostly from residential area south of plant. Weather patterns from weather data were generally directionally near or towards residences making odor complaints but not in all cases.	Complete	1-15-16

<b>Perform Dispersion Modeling</b>		
<b>Actions</b>	<b>Status</b>	<b>Date Completed</b>
Conducted dispersion modeling and included in the permit application submitted to MDEQ AQD Permit Section on February 11, 2016.	Complete	02/11/2016

<b>Evaluate E-Coat Process</b>		
<b>Actions</b>	<b>Status</b>	<b>Date Completed</b>
Reviewed current material used in E-coat process, evaluated any changes and date of such changes. Current coating product is FRAMCOAT II by PPG Industrial Coatings. Material has been in use since 2012.	Complete	1-27-16
PPG was contacted and confirmed no changes to formulation have recently been made.	Complete	1-27-16
Evaluated pastes and resins used in E-coat process. No changes to pastes and resins have been made since 2012.	Complete	1-27-16
Reviewed chain oil and no change in past few years. Chain lubricated weekly.	Complete	1-27-16
Noted bearing grease product used has recently been changed. Main bearings are currently greased on daily basis.	Complete	1-27-16
A cleaner was changed from 611LS to Ultrax 93D in September 2015.	Complete	1-27-16
Noted deionized water was used in E-coat process from 2011 to 2013. In 2013, a change was made to utilize water treated by reverse osmosis.	Complete	1-27-16
Noted increase in operating hours (a third shift was added) for the E-coat process since November 19, 2015.	Complete	12-3-15
Verified the operating temperature of the E-coat oven has remained at 370 degrees F.	Complete	12-3-15
Reviewed oven exhaust diagrams and designed exhaust velocity. Three exhaust stacks utilized for E-coat process. Entrance door exhaust fan is designed for variable speed between 0 and 10,000 CFM, the oven at 16,000 CFM and the exit exhaust fan variable speed at 0- 20,000 CFM. Exhaust parameters appear consistent since 2012.	Complete	1-29-16

<b>Evaluate E-Coat Process</b>		
<b>Actions</b>	<b>Status</b>	<b>Date Completed</b>
Reviewed oven cleaning records. Cleaning of oven confirmed performed annually in December. Cleaning is accomplished through physical scraping and chipping of material from oven walls and floor. Carrier cleaning records were reviewed and found to be completed approximately every six months. Carrier cleaning is performed off-site, and no anomalies were noted in review.	Complete	12-3-15
Reviewed stack maintenance records. Stack maintenance is performed on an as-needed basis.	Complete	12-3-15
Reviewed VOC calculations and confirmed rolling 12-month averages were within permit limits.	Complete	12-4-15
Evaluated differences in chemical composition for materials where changes have recently been made. Only change made to process in last 12 months was a cleaner used in Stage 1 (change made in September 2015). Due to cleaner being used in Stage 1, prior to 4 separate rinse stations and paint coating tank, the cleaner would not change oven emissions.	Complete	1-27-16
Reviewed other possible odor sources in facility and determined there is no chemical or material used in significant enough quantities to cause an odor concern that would be noticeable outside the facility and certainly not 450 feet from property line in neighboring community where odor concerns originated.	Complete	1-29-16
Evaluate improving material blow-off to entering oven to reduce amount of excess coating introduced into the oven.	Complete	1-29-16
Evaluate eliminating fugitive emissions from oven exhaust system and unused heat exchanger.		
<ul style="list-style-type: none"> <li>Block cold air return 24-inch duct to existing heat exchanger.</li> </ul>	Complete	1-30-16
<ul style="list-style-type: none"> <li>Temporarily cover make-up air returns above oven.</li> </ul>	Complete	2-12-16
<ul style="list-style-type: none"> <li>Improve oven exit hood to better capture air around freshly coated parts while they cool off.</li> </ul>	Complete	2-10-16
<ul style="list-style-type: none"> <li>Install covers on opening on top of heat exchanger to seal heat exchanger and prevent oven gasses from escaping.</li> </ul>	Complete	2-15-16
<ul style="list-style-type: none"> <li>Develop work plan to remove heat exchanger and new fan with required ducting.</li> </ul>	In process – Scope of work and RFQ sent . CER developed for submission	
Reduce paint build-up on carriers.		
<ul style="list-style-type: none"> <li>Send current trial carriers out for cleaning.</li> </ul>	Complete	2-24-16
<ul style="list-style-type: none"> <li>Modify cleaned carrier to minimize paint build on carrier.</li> </ul>	Complete	3-11-16
<ul style="list-style-type: none"> <li>Trial modified carrier.</li> </ul>	Complete	4-12-16
<ul style="list-style-type: none"> <li>Modify remaining carriers (28 sets)</li> </ul>	In process – Scope of work and RFQ sent . CER developed for submission	

<b>Engage Third-Party Vendors</b>		
<b>Actions</b>	<b>Status</b>	<b>Date Completed</b>
Engaged services of Amec Foster Wheeler as well as coating manufacturer PPG and General Fabrication to assist in evaluating potential source of odor and suggest process improvements to mitigate any future odor concerns.	Activities completed to date did not conclude a likely source for the odor. Tower is proposing to take additional actions.	1-22-16
Plant is working with an air cannon vendor [to assist in reducing amount of excess coating introduced into the oven].	In process – Scope of work and RFQ sent . CER developed for submission	
Meet with PPG to determine possible process improvements.	Complete	1-27-16

Engage Third-Party Vendors		
Actions	Status	Date Completed
<ul style="list-style-type: none"> <li>Improvements to Ultra Filtration System. Filtration system vendor will review existing process and make recommendations.</li> </ul>	In process – Scope of work and RFQ sent . CER developed for submission	
<ul style="list-style-type: none"> <li>Verify Post-Rinse particulate levels. Levels were confirmed to be in spec.</li> </ul>	Complete	1-29-16
<ul style="list-style-type: none"> <li>Install flow meter to track make-up bath liquids in tanks to help identify opportunities to reduce drag out from tank to tank. Plant ordered flow meter and will be installed upon receipt.</li> </ul>	Complete	3-30-16
<ul style="list-style-type: none"> <li>Engaged services of General Fabricators Corporation which is a curing oven manufacturer to perform a full evaluation of the oven and current performance. Recommendations and possible performance improvements if identified will be communicated in final evaluation report.</li> </ul>	Complete	4-1-16