



Via: email and certified mail

March 16, 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 (February 26, 2016) – Odor Complaint
Tower Automotive – Plymouth, MI

Dear Mr. Zynda:

Tower Automotive Operations, LLC (Tower) is in receipt of a February 26, 2016 Notice of Violation (NOV) letter related to odor complaints the agency attributes to the Tower facility at 43955 Plymouth Oaks Boulevard in Plymouth, Michigan. Below you will find the information requested in the NOV. Please note, this letter is also intended to update the MEDQ AQD on the status of the activities listed in the previous letter sent January 26, 2016, in which, Tower committed to providing a status update by March 28, 2016.

Background:

Tower understands that there have been reports of odors detected in residential areas to the south of the plant over the past few years. Per the MDEQ records, most of the complaints were non-specific and not attributed to any particular location or source. During a recent visit by Mr. Zynda, the MDEQ AQD notified Tower that the agency believes that at least some of the odors identified in the complaints were originating from the Tower International Plymouth Oaks Boulevard facility. Based on these concerns, the MDEQ AQD issued an NOV to Tower on January 5, 2016 which referenced the E-coat process as the likely source of the odors. On February 26, 2016 Mr. Zynda telephoned the facility to inform the plant that another concern was phoned into the district office and upon his visit to the location he planned to issue another NOV with a response due by March 18th 2016. Due to the

subjective nature of odor concerns, Tower remains unsure that the odor, as described, is specifically attributed to the e-coating line at the Plymouth Oaks Boulevard facility, however, in a good faith effort to investigate this issue, Tower has undertaken, or will undertake, the actions listed in Table 1 (attached) to mitigate possible problematic odors from the e-coating line.

I am confident that after your review you will see the Plymouth Oaks Boulevard facility has taken many steps to mitigate any possible contribution to the odor concerns in the community that could arise from the plant, and has planned additional measures to further mitigate potential odor sources.

If you have questions regarding this matter please contact James Pace at 734-347-2631.

Tower looks forward to a swift and successful resolution to this matter.

A handwritten signature in black ink, appearing to read 'James Pace', with a large, stylized loop at the end.

James Pace, EHS Engineer

CC:

Mike Nieman – Tower
Douglas Barger – Tower

Enclosure: Table 1 –. TOWER AUTOMOTIVE ACTIONS IN RESPONSE TO ALLEGED ODOR COMPLAINTS

TABLE 1 - TOWER AUTOMOTIVE ACTIONS IN RESPONSE TO ALLEGED ODOR COMPLAINTS

Review Wind & Weather Conditions		
Actions	Status	Date Completed
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

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

Evaluate E-Coat Process		
Actions	Status	Date Completed
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

Evaluate E-Coat Process		
Actions	Status	Date Completed
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"> Block cold air return 24-inch duct to existing heat exchanger. 	Complete	1-30-16
<ul style="list-style-type: none"> Temporarily cover make-up air returns above oven. 	Complete	2-12-16
<ul style="list-style-type: none"> Improve oven exit hood to better capture air around freshly coated parts while they cool off. 	Complete	2-10-16
<ul style="list-style-type: none"> Install covers on opening on top of heat exchanger to seal heat exchanger and prevent oven gasses from escaping. 	Complete	2-15-16
<ul style="list-style-type: none"> Develop work plan to remove heat exchanger and install new oven exhaust stack that is higher, with greater diameter and higher flow. 	In process. Next step is to obtain approval from MDEQ for change. Conference call held with MDEQ AQD on March 11, 2016.	
Reduce paint build-up on carriers.		
<ul style="list-style-type: none"> Send current trial carriers out for cleaning. 	Complete	2-24-16
<ul style="list-style-type: none"> Modify cleaned carrier to minimize paint build on carrier. 	Complete	3-11-16
<ul style="list-style-type: none"> Trial modified carrier. 	In process (60 days) trial	
<ul style="list-style-type: none"> Modify remaining carriers (28 sets) 	TBD based on trial results	

Engage Third-Party Vendors		
Actions	Status	Date Completed
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].	Pending recommendations from the vendor.	
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"> Improvements to Ultra Filtration System. Filtration system vendor will review existing process and make recommendations. 	In process – pending recommendations	
<ul style="list-style-type: none"> Verify Post-Rinse particulate levels. Levels were confirmed to be in spec. 	Complete	1-29-16
<ul style="list-style-type: none"> 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. 	Plan to install by March 30, 2016.	
<ul style="list-style-type: none"> 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. 	Evaluation report is estimated to be communicated to Tower by April 1 st .	