DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

N567773517

FACILITY: Lear Corporation dBa Eagle Ottawa		**SRN / ID:** N5677
LOCATION: 2930 WEST AUBURN RD, ROCHESTER HLS		**DISTRICT:** Warren
CITY: ROCHESTER HLS		**COUNTY:** OAKLAND
CONTACT: Doug Andrews , Global Manager of Energy & Environment		**ACTIVITY DATE:** 08/28/2024
STAFF: Marie Reid	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: FY24 Inspection		
RESOLVED COMPLAINTS:		

On, August 28, 2024, I (Marie Reid), Michigan Department of Environment of Great Lakes, and Energy – Air Quality Division (EGLE – AQD), conducted a scheduled inspection of Lear Corporation DBA Eagle Ottawa (SRN: N5677) located at 2930 West Auburn Road, Rochester Hills, MI. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Administrative Rules; and the conditions of Permit to Install (PTI) No. 433-95C.

I arrived at the facility at 10:30am and met with Karl Rohr, Facilities/Special Projects Manager and Doug Andrews, Global manager. During the site tour, we met with Andrew McCave, Maintenance Manager. I identified myself and stated the purpose of the inspection. Karl, Doug, and I had a pre-inspection meeting where we discussed the facility's operations, and reviewed records. After the pre-inspection meeting, they gave me a tour of the facility.

I was provided with all records I requested before the inspection. I requested additional records during the inspection that were provided later that day. I reviewed records from August 1, 2023 – August 1, 2024. These records are available on the AQD shared drive at the following address: S:\Air Quality Division\STAFF\Marie Reid\FY24\N5677 - Eagle Ottawa\FY24 Inspection Records.

FACILITY OVERVIEW

Eagle Ottawa operates an automotive leather finishing research and development (R&D) facility. Until September 2022, Eagle Ottawa operated as a back-up production facility to their plant in Mexico. Lear has around 90 employees and operates Monday - Friday from 5am-4pm and is followed with a cleaning shift.

The facility receives tanned animal hides and develops processes for "finishing" the hides so they can be used at other facilities to manufacturer vehicle seating. The leather finishing activities conducted at the facility include softening, stretching, coating, and patterning the hides. The softening and coating activities generate air emissions.

The facility uses 12 leather mills (EU-LeatherMills) to soften leather hides. The mills tumble the hides under heated conditions, and exhaust through fabric dust collectors. The mills exhaust air back to the in-plant environment in cooler weather, when the moisture and warmth are desired indoors, and are exhausted outdoors otherwise.

Leather mills cause the hides to shrink from the heat, so the leather is processed through a stretcher to smooth and flatten the hides. This process creates dust which is collected in a baghouse. The stretchers are not permitted because the filtered exhaust is released back to

the general in-plant environment and therefore are exempt from Rule 201 pursuant to Rule 285(2)(i).

A splitting machine (EU-Splitter) may be used to split thick hides to produce hides of the desired thickness. Larger removed material falls into a tray. Its emissions are vented through a cyclone dust collector with a hopper, which may exhaust indoors or outdoors, similar to how the leather mills exhaust. Karl stated that they do not often need to split full hides anymore, so this emission unit is rarely operated.

A Laser Etcher (EU-LaserEtcher) is used to emboss patterns into leather. Emissions are controlled by a series of filter systems: prefilter, HEPA filter, charcoal filter, and postfilter. Karl stated the etcher is rarely operated, as the aesthetic this emission unit provides in leather seating is no longer desired.

The facility uses several automatic coating lines (EU-SL1, EU-SL2, EU-SL3, EU-SP4, and EU-SP5and6) and a manual spray booth (EU-TestBooth) to apply coatings to leather hides. Each automatic coating line consists of rollcoaters, spray booths, curing ovens, airoff ovens, and associated purge and cleanup operations. The facility only uses waterborne coatings, using its own formulations. EU-SL1, and EU-SP6 have been completely disassembled and removed from the facility. EU-SP5 is expected to be fully decommissioned and removed from the facility in 2024. During the inspection, I observed that EU-SP5 was almost completely dismantled.

Lear mixes its own formulations using a Product Dispensing System (PDS). Base resins are stored on a mezzanine. The computer has recipes (formulations). All ingredients fall into the 55-gallon drum and the ingredients (resins, pigments, etc.) are mixed. Other ingredients such as brighteners may be added. The mix is taken to final mix area and mixes are fine-tuned manually to get exact color. The computer keeps track of usage. All logs are recorded on the computer.

Rollcoaters are used to apply the base and color coat followed by spray coating to apply the final color/topcoat. Each booth is equipped with 12 Air-assisted Airless HVLP guns that rotate over the leather underneath, as it travels through the booth. Each gun is equipped with an infra-red (IR) eye to detect leather underneath such that water-based liquid coatings are sprayed only when the leather is present. IR eyes reduce overspray resulting in cost savings through reduction in paint waste and, also, resulting in emissions reduction via increase in transfer efficiency (TE). HVLP guns rotate over a mesh where leather is spread for coating. Automatic spray booths are equipped with a water curtain collector to remove overspray. Water is drained each day and treated at Great Lakes Water Authority. The manual test booth is controlled by fabric filters and equipped with a pressure drop meter.

Coating is cured to hides in two steps. The first curing occurs in the natural gas-fired “curing ovens” to drive off water from the water-based coating and dry the coating. Complete curing occurs in the natural-gas fired “air-off ovens” where the cross-linking of polymers occurs.

After the coating application and curing, hides are softened in a leather mill and stretched/flattened in a stretcher. The final process involves impressing patterns into hides and storing them for shipment.

REGULATORY ANALYSIS

There is a NESHAP for leather finishing operations at major sources of HAPs. It is 40 CFR Part 63, Subpart TTTT: National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations. Since this facility is a minor/area source of HAPs, Subpart TTTT does not apply.

VIOLATION NOTICES & CONSENT ORDER

AQD issued a VN to Lear dated July 29, 2014, for failure to perform required VOC and HAP calculations pursuant PTI No. 433-95A, installing/operating unpermitted coating lines, failure to keep proper Rule 290 exemption records, and operating Rule 290 exempt R&D lines as full production lines. As a response to the July 29, 2024 VN, Lear provided Potential to Emit (PTE) calculations for the existing permitted (PTI No. 433-95A), new unpermitted, and formerly Rule 290 exempt coating lines. PTE is based upon maximum design capacity and 8,760 hours per year operation. The VOC PTE was greater than 100 ton per year (tpy) (390 tpy). An additional VN was issued on August 27, 2024 (Rule 210), for failure to obtain a Renewable Operating Permit (ROP).

As a result of dual 2014 violation notices, Eagle Ottawa settled the violations with a Consent Order (CO) AQD No. 18- 2015 on May 29, 2015, with a settlement amount of $66,000.00. This CO is terminated as of April 9, 2024.

During the FY23 inspection, I requested recordkeeping data from Lear from July 2022 through July 2023 which was provided. Lear stated that they only needed to record data while operating in production mode, and not for R&D because they permitted the facility for production only, and they can use Rule 283 as an exemption for R&D operations. The AQD informed them that Rule 283 does not apply and they must keep records for R&D because the coating lines are already permitted and the permit does not have any language specifying that they only need to record data for production and not R&D. Lear agreed to provide conservative estimates of R&D operation calculations of emission and material limit records, and agreed to continue to keep R&D recordkeeping on file.

After the FY23 inspection, Lear requested to void their permit (PTI No. 433-95C), and instead, operate their emission units under the Rule 283 exemption. The AQD rejected this request because Lear could not demonstrate, with their PTE calculations, that the equipment is not excluded from exemption by Rule 278. Lear submitted multiple versions of PTE calculations for VOCs. The AQD did not accept these calculations, as Lear calculated VOC PTE based on the maximum emissions from the R&D process, and not on the equipment’s maximum design capacity and 8,760 hours per year operation. Lear stated that instead of submitting new PTE calculations, they will submit a permit application.

PTI No. 433-95C

FG-Coating

This flexible group consists of several automatic coating lines (EU-SL1, EU-SL2, EU-SL3, EU-SP4, and EU-SP5and6) and a manual spray booth (EU-TestBooth).

SC I.1-3 limits the facility’s emissions to 5,330 pounds per year of 2-Dimethylaminoethanol (DMEA), 3.9 pounds per day of Triethylamine (TEA), and 36 tpy of VOCs. These emission limits are met based on the records I reviewed. Lear calculates emissions using a conservative estimate, assuming they only use the coatings with the highest VOC, DMEA, and TEA content. Based on the provided records, DMEA and VOC emissions were both reported highest during the 12-month period ending in January 2024 with 13.2 lbs and

1,404 lbs, respectively. The monthly TEA emissions were lower than the daily limit of 3.9 pounds per day. Monthly TEA emissions were reported highest in September 2023 with 2.8 lbs.

SC II.1 limits the facility to 18,000,000 square feet per year of hides coated. This material limit is met based on the records I reviewed. Square feet of hides coated was highest during the 12-month rolling period ending in January 2024 with 251,325 square feet of hides (5,585 hides). During the walkthrough, I observed racks of hides that were coated earlier that day. Karl stated that these hides have been coated and dried in the curing oven and were awaiting curing in the air-off oven. I observed around 30 total hides on these drying racks.

SC II.2 limits the facility to 4.0 pound per 1,000 square feet of hides coated of VOCs. This material limit is met based on the records I reviewed. Based on the provided records, VOC per hide is <1 pound for every 12-month period.

SC II.3 states that the permittee shall not use any purge or cleanup solvent in FG-Coating that contains VOC. The facility informed me that no solvent containing VOC is used in purge and cleanup activities in FG-Coating. Lear uses waterborne coatings so only water is used to flush the spray booths, lines, and guns.

SC III.1 requires the facility to capture all waste coatings and purge materials and store them in closed containers and dispose of all waste coatings and purge materials in an acceptable manner. At the end of each day, short term material storage containers are emptied into a barrel for long term storage and properly disposed of when full. I observed that the short-term material storage containers were emptied and cleaned for the day & long -term material storage containers were closed.

SC III.2 requires the disposal of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. EU-TestBooth is equipped with a differential pressure meter that will indicate when the dry filters need to be replaced. Andrew said that EU-TestBooth’s filters are changed quarterly and disposed of properly. I observed that the dry filters were properly installed and did not appear to need to be replaced.

SC III.3 requires the permittee to handle all VOC and HAP containing materials in a manner to minimize the generation of fugitive emissions and keep containers covered at all times except when operator access is necessary. Karl stated that VOC and HAP containing material containers are only opened while in use. I observed that all containers containing VOC and HAP materials were closed during the inspection.

SC III.4 states that the facility shall not conduct coating operations in FG-Coating for more than 20 hours per calendar day. Karl stated that coating operations can occur from 5am – 4pm. I did not observe any emission units in FG-Coating operating during the inspection.

SC IV.1 states that the facility shall not operate any spray booth unless all respective overspray control systems are operated in a satisfactory manner. Overspray from each spray booth is controlled by a water curtain collector. I observed that the spray guns in each booth was cleaned and wrapped in plastic. Based on my inspection and record review, the overspray control systems are maintained in a satisfactory manner.

SC IV.2 states that the facility shall equip each spray booth with HVLP applicators or comparable technology. I observed that each booth is equipped with Air-assisted Airless HVLP guns.

SC V.1 states that the facility shall determine the VOC content, water content, and density of any coating, as applied and as received, using EPA Method 24. Lear formulates coatings using their own formulations. During the 2023 inspection, I reviewed the analytical reports to confirm Lear's coatings are tested using EPA Method 24. Lear uses the coating with the highest VOC content to calculate VOC emissions.

SC VI.2 states that the facility must keep records of the chemical composition of each coating, including the weight percent of each component. The facility keeps track of this information using its own formulations.

SC VI.3 states the facility must keep the gallons (with water) of each VOC-containing material used, the VOC content of each coating as applied, and the monthly/12 month rolling VOC emission rate. I verified these records are kept.

SC VI.4 states the facility must keep the gallons (with water) of each DMEA-containing material used (and reclaimed, if applicable), the DMEA-content (with water) in lbs/gallon of each material used, and the monthly/12 month rolling DMEA-emission rate. I verified these records are kept. Lear does not reclaim any DMEA-containing material.

SC VI.5 states the facility must keep the gallons (with water) of each TEA-containing material used (and reclaimed, if applicable), the TEA-content (with water) in lbs/gallon of each material used, the daily TEA emission rate, square feet of hides coated, and records of days when TEA-containing material is not used. I verified these records are kept. Lear does not reclaim any TEA-containing material.

SC VI.6 states the facility must keep monthly/12 month rolling records of the square feet of hides coated. I verified these records are kept.

SC VI.7 states the facility must calculate the VOC emission rate for the preceding 12-month rolling time period, in pounds per 1,000 square feet of hides coated. I verified these records are kept.

SC VI.8 states the facility shall log the daily hours of operation. Lear can conduct coating operations from 4am-5pm, which is less than the 20 hour per day limit required in SC III.4.

SC VI.9-10 states the facility can submit a request to the AQD to suspend certain recordkeeping requirements. Lear stated they are not going to request to suspend these recordkeeping requirements because they hired a consultant to submit a permit application to modify this permit.

FG-PM
This flexible group consists of a splitter (EU-Splitter), laser etcher (EU-LaserEtcher), and 12 leather mills (EU-LeatherMills).

SC I.1-3 lists emission limits for PM, PM10, and PM2.5. The emission units in this flexible group should meet these emission limits based on proper operation of the control devices.

SC IV.1 states the facility shall not operate any leather mill or splitting machine in FG-PM unless the associated emission control device is installed maintained and operated in a satisfactory manner. I observed EU-Splitter and EU-LeatherMills #1-7. None of this equipment was operating during the inspection. Karl stated that the bags are shaken after every use. I observed some of the baghouses and did not see any tears in the bags and the hoppers were recently emptied.

SC VI.1-2 Requires Lear to inspect each leather mill or splitting machine before the first use of each day to verify the associated control device is operating properly. Each inspection shall verify both the integrity of the dust collection media and that the dust collection media is properly attached. If any fault of integrity or any improper attachment is observed, the permittee shall correct the fault or improper attachment before operating the mill or splitting machine. Karl supplied yearly, quarterly, bi-weekly, and daily leather mill inspection records that contain the name of the person inspecting the control device, the results, and any corrections made. Each inspection verifies both the integrity of the dust collection media and that the dust collection media is properly attached before operation. Any faults or improper attachment is fixed prior to operating the mills or splitting machine.

Based on the provided records, the most recent annual inspection was completed on 6/10/24. The report states that socks were changed on all 12 mills.

FGFACILITY
SC I.1-2 limits each individual HAP to less than 9 tpy (18,000 lbs/yr) and aggregate HAPs to less than 22.5 tpy (45,000 lbs/yr) per 12-month rolling period for FGFACILITY. These emission limits are met based on the records I reviewed. Aggregate HAP emissions were reported highest during the 12-month period ending in February 2024 with 46.2 lbs.

SC V.1 requires the facility to determine the HAP content of any coating as received and as applied, using manufacturer's formulation data. The facility keeps HAP content information using its own formulations.

SC VI.2 requires the facility to keep records in gallons or lbs of each HAP-containing material used (and reclaimed, if applicable), the HAP content of each HAP-containing material used. Additionally, Lear must maintain monthly/12-month rolling records of individual and aggregate HAP mass emissions. I verified these records are kept. Lear does not reclaim any HAP-containing material.

ANNUAL AIR EMISSIONS REPORTING (AER)
Lear submitted their 2023 AER to SLEIS on time. I confirmed that the emissions and throughput values reported to SLEIS are consistent with records provided during this inspection.

CONCLUSION
Based on the field inspection and the records provided, Lear Corporation DBA Eagle Ottawa is in compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451); Michigan Administrative Rules; and the conditions of Permit to Install (PTI) No. 433-95C.

NAME Maria Reid DATE 09/12/2024 SUPERVISOR K. Kelly