

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

N659462863

FACILITY: X-Cel Industries Inc.		SRN / ID: N6594
LOCATION: 21121 Telegraph Rd, SOUTHFIELD		DISTRICT: Warren
CITY: SOUTHFIELD		COUNTY: OAKLAND
CONTACT: Ted Hundich , Environmental Coordinator		ACTIVITY DATE: 05/12/2022
STAFF: Robert Elmouchi	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: On-site inspection of facility and recordkeeping review.		
RESOLVED COMPLAINTS:		

On May 12, 2022, I conducted a scheduled inspection of X-Cel Industries, Inc. located at 21121 Telegraph Road, Southfield, Michigan. This source is uniquely identified by the Air Quality Division with the State Registration Number (SRN) of N6594. The purpose of the 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); the administrative rules; and the conditions of Permit to Install (PTI) No. 260-98C.

X-Cel Industries, Inc. (X-Cel) currently specializes in surface coating metal parts for the automotive industry. PTI No. 260-98C authorizes EU-CoatingLine, which is a plastic and metal parts coating line. X-Cel ceased coating plastic parts in December 2021 and no internal plan has been announced to resume surface coating of plastic parts.

On April 1, 2021, X-Cel was purchased by Flex-N-Gate. On November 1, 2021, Flex-N-Gate also purchased the adjacent building to the north, located at 21175 Telegraph Road. This building was formerly occupied by COMAU Robotics. I was told that Flex-N-Gate plans to increase surface coating throughput at the existing X-Cell address. The new 21175 building will be used only for assembly, shipping, and receiving. Flex-N-Gate recognizes that increased throughput will likely require a PTI modification, and possibly VOC and HAPs emissions control. Ted Hundich, X-Cel Environmental Coordinator, indicated that a new project would likely start around July or August 2022. I emphasized the importance of submitting the permit modification as soon as possible because of the time it takes to process a permit.

INSPECTION

On May 2, 2022, I conducted an annual MAERS (Michigan Air Emissions Reporting System) audit of X-Cel. Part of the audit included a Teams video conference review of X-Cel's emissions calculations, with Ted Hundich and Patrick Moquin P.E., Consultant. Per this MAERS audit, it appears X-Cel's emission calculations are valid. During the on-site inspection, I focused on reviewing compliance with

emission limits, as well as the maintenance and operation of particulate emissions control devices.

I arrived on-site and met with Ted Hundich, Environmental Coordinator, who escorted me throughout the facility inspection and provided data during the recordkeeping review. We held an opening meeting where we discussed the items to be reviewed and their order.

We began the site inspection by walking the property exteriors at 21121 Telegraph Road, and 21175 Telegraph Road. All process exhaust stacks appeared to be properly installed and maintained. Ted Hundich escorted me through the new 21175 building. I observed only assembly, quality assurance, storage, and shipping activities. I did not observe any processes or activities subject to the air pollution control rules.

We then entered the X-Cel, 21121 Telegraph Road, building and proceeded to inspect EU-CoatingLine. The first part of EU-CoatingLine is the E-coat (electrocoating deposition) system with fourteen (14) dip tanks and one curing oven. The second part of EU-CoatingLine is the seven (7) robotic spray booths and three (3) curing ovens. Each E-coat process stage occurs within an enclosed conveyor line.

Robotic Spray Booth summary:

Booth 1 – primer/adhesion promoter. Booth has not been used since December 2021.

Booth 2 - primer/adhesion promoter. Currently, an adhesion promoter is not used.

Oven – cure primer.

Booth 3 – base coat.

Booth 4 – base coat.

Booth 5 – clear coat.

Booth 6 – clear coat.

Booth 7 – not used.

Oven – cure high-bake coatings.

Purge and clean-up are included in the emission limits. X-Cel tracks paint and solvent recovered through waste manifests and uses this data in calculating emissions.

The spray booths create particulates due to overspray. The robots use HVPL or equivalent spray gun technology. The overspray particulates are controlled by a down-draft multi-layer dry filter system. The dry filter control device in each spray booth consists of a grid of pocket filters, covered with grates, and then covered by blanket filters. The blanket filters are changed daily. The pocket filters are changed two times per week. I inspected each downdraft spray booth while operating and after shutdown. After the shutdown, I also looked under blanket filters. Ted Hundich and I looked for openings where the exhaust stream in each booth could bypass the particulate filters. We did not find any bypass openings. It appears that X-Cel properly maintains the down-draft multi-layer dry filter particulate control system.

X-Cel does not use a control device to limit VOC and HAP emissions. VOCs and HAPs are limited by the legally enforceable conditions of PTI No. 260-98C. The AQD uses recordkeeping and mass balance to determine VOC and HAP emissions compliance status.

EMISSIONS REVIEW

EU-CoatingLine

I reviewed the 12-month rolling, daily, and instantaneous emission records from April 2021 through March 2022. Below is my compliance review of the highest values, and emission rates reported during the previous 12-month rolling time period. The records I reviewed indicate the permittee is in compliance with the recordkeeping requirements and emission limits specified in PTI No. 260-98C.

I.1 VOC and acetone combined, EU-CoatingLine.

Limit = 80.0 tpy. Actual = 54.5 tpy (September 2021)

I.2 VOC and acetone combined, Per each spray booth of EU-CoatingLine. Note: Booths 1 and 7 are not in use.

Limit per booth = 34.0 tpy.

Actuals:

Booth 2 = 16.5 tpy (September 2021)

Booth 3 = 13.9 tpy (December 2021)

Booth 4 = 14.0 tpy (December 2021)

Booth 5 = 7.5 tpy (February and March 2022)

Booth 6 = 7.5 tpy (February and March 2022)

I.3 VOC and acetone combined per calendar day.

Limit = 2,656 lb./day. Actual = 570.1 lbs. (2/21/2022)

I.4 VOC, Metal parts coating. Daily volume-weighted average.

Limit = 3.5 lb./gal (minus water) as applied.

Actual = 3.35 lb./gal (minus water) as applied. (March 4, 2022)

I.5 VOC, Air-dried plastic parts prime coating. Daily volume-weighted average.

Limit = 4.8 lb./gal (minus water) as applied.

Note: For red and black coatings, the emission limitation shall be determined by multiplying the limit by 1.15.

Limit (Red and Black) = 5.52 lb./gal (minus water) as applied.

Actual = 4.16 lb./gal (minus water) as applied. April through November 2021.

NOTE: Only one coating was used in the air-dried plastic parts prime coating category.

I.6 VOC, Air-dried plastic parts basecoat. Daily volume-weighted average.

Limit = 5.0 lb./gal (minus water) as applied.

Note: For red and black coatings, the emission limitation shall be determined by multiplying the limit by 1.15.

Limit (Red and Black) = 5.75 lb./gal (minus water) as applied.

Actual = 4.78 lb./gal (minus water) as applied. (July 7, and August 4, 2021)

I.7 VOC, Air-dried plastic parts clearcoat. Daily volume-weighted average.

Limit = 4.5 lb./gal (minus water) as applied.

Note: For red and black coatings, the emission limitation shall be determined by multiplying the appropriate limit in this table by 1.15.

Limit (Red and Black) = 5.18 lb./gal (minus water) as applied.

Actual = 4.27 lb./gal (minus water) as applied. (July 28, 2021)

I.8 Pentyl Propionate (CAS No. 624-54-4)**Limit = 20.0 tpy.****Actual = 0.0 tpy.****I.9 Ethyl 3-Ethoxy Propionate (CAS No. 763-69-9)****Limit = 76.3 lb./day****Actual = 14.7 lb./day (June 18, 2021)****I.10 Xylene (CAS No. 1330-20-7)****Limit = 61.8 lb./day****Actual = 49.7 lb./day (September 30, 2021)****II.1 VOC Content for Adhesion Promoter****Limit = 6.3 lb./gal (minus water) as applied.****Actual = 6.14 lb./gal (minus water) as applied.****FG-FACILITY**

I reviewed the 12-month rolling emission records from April 2021 through March 2022. Below is my compliance review of the highest emission rates reported during the previous 12-month rolling time period. The records I reviewed indicate the permittee is in compliance with the recordkeeping requirements and emission limits specified in PTI No. 260-98C.

I.1. Each Individual HAP,**Limit = Less than 9.0 tpy****Actual highest individual HAPs:****Xylene = 3.0 tpy (March 2022)****Toluene = 4.7 tpy (August and September 2021)****I.2. Aggregate HAPs**

Limit = Less than 22.5 tpy

Actual = 8.1 tpy (September and October 2021)

I.3. VOC

Limit = Less than 90.0 tpy

Actual = 54.4 tpy (September 2021)

I.4. Formaldehyde (CAS No. 50-00-0)

Limit = 0.6 tpy

Actual = 0.0 tpy.

I.5. Naphthalene (CAS No. 91-20-3)

Limit = 0.6 tpy

Actual = 0.1 tpy (March 2022)

I.6. Cumene (CAS No. 98-82-8)

Limit = 2.6 tpy

Actual = 0.1 tpy (December 2021 through March 2022)

I.7 Ethylbenzene (CAS No. 100-41-4)

Limit = 9.0 tpy

Actual = 1.0 tpy (October 2021 through February 2022)

Ted Hundich and I held a closing meeting. I did not observe any violations of the air pollution rules or PTI No. 260-98C.

CONCLUSION

Per the May 2, 2022, MAERS audit and the May 12, 2022, on-site inspection, and recordkeeping review, it appears that X-Cel Industries (SRN: N6594) is in compliance with the recordkeeping requirements and emission limits specified in PTI No. 260-98C.

NAME Robert Elmarchi

DATE 5/16/2022

SUPERVISOR Joyce