

**Inspection Report: Precoat Metals, Clean Air Act Stationary Source**

**Facility Name:** Precoat Metals

**Inspection Date:** September 23, 2024

**Facility Address:** 4301 South Spring Avenue, St. Louis, MO 63118

**ICIS-Air ID:** MO0000002951000027

**Federal Facility:** No

**NCI:** Creating Clean Air for Communities

**Facility size:** Major Source

**Activity:** Partial Compliance Evaluation

**State Referral:** No

**EJ:** Yes

**NAICS code:** 332812 – Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers

**Lead Inspector:** Elizabeth Hubbard, ERG Inspector, (919) 468-7894

**Asst. Inspector:** None.

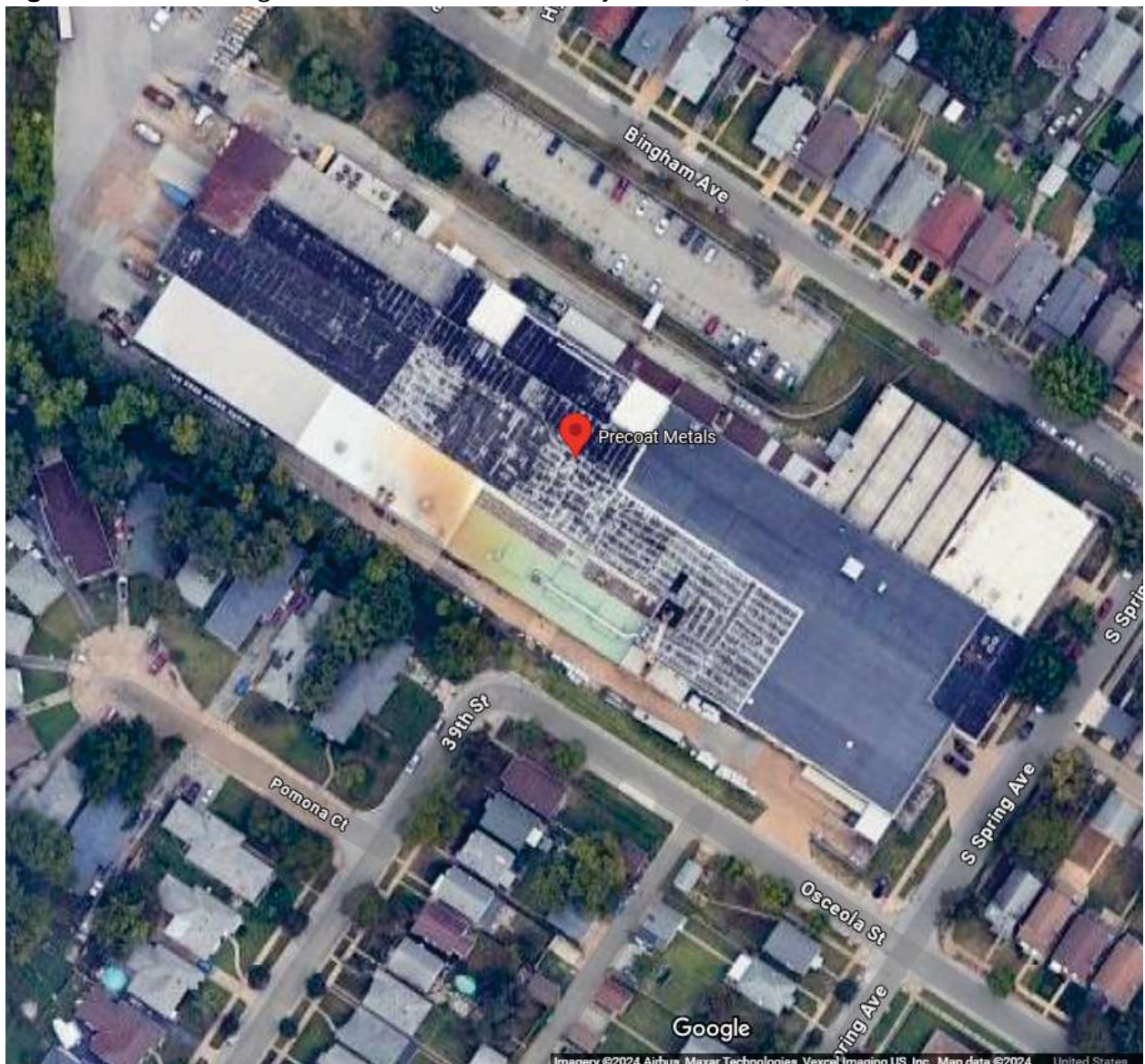
**Other Attendees:** Joe Terriquez, Enforcement Officer, US Environmental Protection Agency, Region 7

**Facility Contact:** Anu Singh, Regionaly Director of Environment, Health, and Safety, (314) 802-5807, anu\_singh@precoat.com

## 1. Plant Description:

According to the facility's 2018 operating permit, "Precoat Metals operates two continuous metal coil surface coating lines. Coil line 1 consists of an aqueous pretreatment section (cleaning, rinsing, chemical treatment), a prime coating section (coater and oven), a printer coater and ultraviolet curing station and a finish coating section (coater, oven and combined oxidizer for the prime and finish ovens and dual fired waste heat boiler). Coil line 2 consists of an aqueous pretreatment section (cleaning, scrubbing, rinsing, and chemical treatment), a prime coating section (coater, oven, and oxidizer) and a finish coating section (coater, oven, oxidizer, and combined waste heat boiler). The installation has six bulk solvent storage tanks, a gas-fired boiler, and a variety of maintenance activities including grinding, degreasing, and sandblasting."

**Figure 1:** Satellite image of the Precoat Metals facility in St. Louis, MO.



## **2. Facility Entry:**

The representatives of the United States Environmental Protection Agency (EPA), Joe Terriquez from EPA Region 7 and Elizabeth Hubbard from Eastern Research Group, Inc. (ERG), arrived at the Precoat Metals facility at 4301 South Spring Avenue, St. Louis, MO (“Precoat”, or “the facility”), at approximately 8:30 am. When the EPA representatives arrived, they parked outside of the facility at the corner of Osceola Street and South Spring Avenue, just to the south/southeast of the facility, and observed some of the facility’s emission stacks with an optical gas imaging, forward looking infrared (FLIR) video camera, model GF320. See photo DSC01439, taken from the same position. Using the FLIR camera, Mr. Terriquez observed apparent emissions from the farthest east stack, later identified as the coating Line 1 thermal oxidizer exhaust stack (see video MOV\_0022). Plumes were also observed from some of the farther west stacks, but those plumes appeared to primarily be steam (see videos MOV\_0023 and MOV\_0024). The sky had full cloud cover, and the air was humid from recent rain, but it was not raining actively at the time the videos were recorded.

At approximately 9:10 am, the EPA representatives entered the facility and were met by Derek Walker, Environment, Health, and Safety (EHS) Manager. Mr. Walker led the EPA representatives to the conference room where they were joined by Michael Hoffman, Plant Manager, for an opening conference. Anu Singh, Regional Director of EHS, also called in on the phone. The EPA representatives presented their identification credentials and provided an overview and scope of the inspection. Ms. Hubbard explained that ERG works as contractors to conduct facility inspections for EPA.

## **3. Opening Conference/Technical Discussion:**

The EPA representatives explained that they were at the facility to conduct a routine Clean Air Act (CAA) inspection. They informed Mr. Walker, Mr. Hoffman, and Mr. Singh (“the facility representatives”) that part of the reason they were there was due to a recent odor complaint from a community member. Mr. Singh informed the EPA representatives that he was present when an odor complaint was received on August 9, 2024 and that operators were able to adjust dampers to reduce the odors. He explained that the facility’s thermal oxidizers destruct volatile organic compounds (VOCs) from the coating lines as long as they are maintained at the correct temperatures. Mr. Singh also noted that the fire department came out to the facility with an air monitor that day and did not detect anything on their monitor. Mr. Terriquez asked if the facility representatives knew what the resident was smelling that day, and Mr. Walker said that it was hard to say, but people sometimes describe odors from the facility as smelling like a trash fire, electrical smell, or burning plastic. Mr. Terriquez asked whether Precoat has a line residents can call or if they keep a log of complaints they receive. The facility representatives responded that there is not a specific line for complaints, but residents can call the regular business number.

Ms. Hubbard asked for background information about Precoat Metals and the facility. The facility representatives informed the EPA representatives that the facility operates 24 hours a day, 7 days a week. The facility currently has between 62 and 65 employees, though they are trying to hire more, and Precoat Metals has around 1,200 employees total across all its facilities. The facility was Precoat Metals’ first facility and was constructed in 1961. They were formerly owned by Sequa

Corporation, but AZZ Inc. purchased Precoat Metals in 2021. The processes at the facility involve coating metal parts for cans, wine caps, tabs, lids, and more. The facility brings in metal coils owned by customers which are coated on one of the facility's two coating lines and then returned. The metal coils pass through an accumulation tower, wash bath, and chromium bath for etching, then they are roller coated, dried in an oven, cooled, and rolled back up. Ms. Hubbard asked whether the chromium bath uses hexavalent or trivalent chromium, and the facility representatives responded that it uses hexavalent chromium.

Ms. Hubbard asked whether any major equipment has been added or upgraded since the facility was built. The facility representatives said that coating Line 1 was widened around 2000, and the Line 2 wet treatment section was upgraded in 2021. The facility also added a wastewater treatment plant in 2016. The facility representatives were not aware of any other major construction that has taken place since the facility was built.

Ms. Hubbard asked whether the facility's most recent Title V permit is the permit issued December 21, 2018 with an expiration date of December 21, 2023. The facility representatives said this is the most recently issued Title V permit, but a permit renewal application was submitted to the Missouri Department of Natural Resources (MoDNR) in June 2023. According to the facility representatives, the facility accidentally underpaid the renewal fee by approximately \$150 and received a letter of warning from the MoDNR as a result. The facility met with MoDNR to resolve the issue and paid the remaining fee. Ms. Hubbard requested a copy of the permit application which the facility representatives agreed to provide.

Ms. Hubbard noted that the 2018 Title V permit limits VOC emissions from the coating lines and requires an overall control efficiency for each coating line of 95.7% or greater, as demonstrated by performance tests conducted in December 1997 (for Line 1) and October 1994 (for Line 2). Ms. Hubbard asked whether the 1994 and 1997 performance tests are still the most recent performance tests conducted on the coating lines. The facility representatives responded no and said that the most recent performance tests were conducted in 2005. They agreed to provide the EPA representatives with copies of the performance test results.

Ms. Hubbard noted that the facility is subject to 40 CFR Part 63 Subpart SSSS – National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil (NESHAP Subpart SSSS). She explained that amendments to NESHAP Subpart SSSS finalized in 2020 require facilities using a capture system and add-on control device to control HAP on their coil coating line to conduct periodic performance tests every 5 years, and that applicable facilities were required to complete the first periodic performance test before March 25, 2023.<sup>1</sup> Ms. Hubbard asked whether the facility had begun conducting periodic performance tests. Mr. Singh said the facility had not conducted its first performance test required by these amendments and explained that their understanding was they would only be required to meet this requirement once a new permit had been issued. Mr. Terriquez explained that in most cases, the facility must meet all applicable requirements of the subpart, even if those requirements are not listed in its permit. Therefore, if the periodic

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<sup>1</sup> See Table 1 to 40 CFR 63.5160.

performance testing requirements apply to the facility, then it was most likely required to complete its initial periodic performance test by the date specified in the subpart.

Ms. Hubbard asked which compliance option the facility uses to limit emissions of organic hazardous air pollutants (HAP) as required by NESHAP Subpart SSSS (i.e., use of “as purchased” compliant coatings, use of “as applied” compliance coatings, use of a capture system and control device, or use of a combination of compliant coatings and control devices). The facility representatives said they calculate emissions based on the VOC or HAP content of the coatings as applied because they sometimes add solvents to the coatings prior to application.

Ms. Hubbard asked the facility representatives to explain how they calculate emissions. The facility representatives said that emissions are calculated using IBM AS/400 software. The AS/400 software uses coating contents from safety data sheets and coating usage to calculate total VOC and HAP usage, which is then added to a spreadsheet. The facility calculates coating usage by measuring the amount of paint in a container before and after use. The coating usage and safety data sheets are input into AS/400, and emissions are calculated on a monthly basis.

Ms. Hubbard asked if the facility takes emissions reductions from the thermal oxidizers into account in their emissions calculations, and the facility representatives said yes. They explained that their Yokogawa process control software calculates emissions from controlled sources based on destruction efficiency. Line 1 has one thermal oxidizer, and Line 2 has two thermal oxidizers (one for prime coating and one for finish coating). To maintain the required destruction efficiency, the combustion chamber of each thermal oxidizer must meet specific temperature parameters: the Line 1 thermal oxidizer must maintain a minimum combustion temperature of 1,407°F, and the Line 2 thermal oxidizers must maintain minimum combustion temperatures of 1,388°F for the prime coating oxidizer and 1,387°F for the finish coating oxidizer.

The EPA representatives also requested copies of the following records. They informed the facility representatives that they would follow up via email with a link where they could upload electronic copies of the records:

- Past three years of monthly IBM AS/400 outputs including daily coating and reduction solvent usage and VOC and HAP emissions
- Operator shift summaries indicating coating usage by type from all of August 2024 and September 23, 2024
- Safety data sheets and product data sheets for all coatings used in August 2024 and on September 23, 2024
- Safety data sheets for all solvents used at the facility
- Latest performance test results for coating Lines 1 and 2
- Coating line monitoring plan/operating and maintenance plan
- Coating line startup, shutdown, and malfunction plan
- Facility process diagram
- Most recent Title V permit application

#### **4. Facility Tour/Walkthrough:**

At approximately 11:00 am, Mr. Walker led the EPA representatives on a tour of the facility. The EPA representatives explained that during the facility tour, they would capture digital images of the facility's processes and emission points using a digital point and shoot camera, as well as a FLIR camera, that are not intrinsically safe. They informed Mr. Walker that they would let him know prior to taking each photo or video and explained that the facility would have the opportunity to claim any of the images as confidential business information (CBI), if needed. Mr. Walker said he would let the EPA representatives know of any areas where they could not take the cameras due to safety concerns but did not express any other concerns with the EPA representatives capturing images. The list of digital images and FLIR videos taken during the facility tour are included in Appendix A.

Line 1 was operating during the facility tour, but Line 2 was not. Mr. Walker told the EPA representatives that Line 1 generally runs seven days a week, while Line 2 only runs two to three days a week, as needed. The group visited the Line 1 wet treatment area, the Line 1 prime coating room, observed the Line 1 thermal oxidizer monitors, then went outside and took a walk around the perimeter of the building.

At the Line 1 wet treatment area, the EPA representatives observed multiple baths used to treat the metal coils prior to coating, including cleaning baths, a hexavalent chromium etching bath, and water rinses. Ms. Hubbard asked whether the chromium bath has any controls, and Mr. Walker said that bath is covered and has an exhaust vent that terminates outside, but it does not have a control device.

At the Line 1 prime coating room, Mr. Walker requested that the EPA representatives leave all electronics outside the room due to the potential for an explosive atmosphere. The EPA representatives did as he asked and left their electronics outside of the room. Inside the room, Ms. Hubbard noted there was a strong, acrid odor. The EPA representatives observed coatings stored in both totes and barrels, and one of the totes was in use. Mr. Walker informed the EPA representatives that the coating room is under negative pressure, and air from the rooms is routed to the Line 1 thermal oxidizer.

Just outside the Line 1 prime coating room, Mr. Terriquez used the FLIR camera to observe the door to the room and other equipment around the door for potential signs of emissions. Mr. Terriquez did not see any emissions coming from the door, but he did notice possible emissions or heat waves coming from one of the joints in the make-up air duct, which carries fresh air from outside of the building to the coating room. Ms. Hubbard took a photo of the location where the possible emissions/heat were observed (see photo DSC01440).

Outside the building, Mr. Terriquez observed the Line 1 thermal oxidizer stack and boiler stack from multiple angles using the FLIR camera. He did not see any indications of emissions.

At approximately 12:20 pm, the EPA representatives took a lunch break. They returned to the facility at approximately 2:00 pm and met again in the conference room for a closing conference.

## **5. Closing Conference:**

Upon returning to the conference room, the EPA representatives met again with Mr. Walker, Mr. Hoffman, and Mr. Singh, who phoned into the meeting.

Mr. Walker showed the EPA representatives an example of an Emissions Detail Report, which shows the safety data sheet inputs for each coating by paint ID, as input into IBM AS/400. Mr. Singh explained that the product data sheets for the coatings include more detailed information than the safety data sheets, such as HAP content and VOC content. He told the EPA representatives that Precoat uses exact content numbers for different coating components whenever they are available.

Mr. Terriquez asked the facility representatives whether the facility conducts EPA Method 22 observations. The facility representatives said that Method 22 observations are conducted on the Line 1 thermal oxidizer, the waste heat boiler, and the Line 2 thermal oxidizers. They showed the EPA representatives the forms they use for Method 22. Mr. Terriquez pointed out that the facility's Method 22 forms do not match EPA's official Method 22 forms and that they were missing some required information. He noted that Precoat's Title V permit requires the facility to use EPA Method 22 procedures and recommended switching to the official EPA Method 22 forms, which can be found on the EPA website.

The EPA representatives explained to the facility representatives that EPA would provide Precoat Metals with an inspection report in approximately 60 days. They explained that the report would be available to the public through the Freedom of Information Act, and therefore, if the company wanted to claim any notes or digital images as CBI, they could do so. They provided the facility representatives with the EPA's confidentiality notice form. Mr. Walker signed the form. See Appendix B.

The EPA representatives went back through the documents that were requested during the opening conference and reiterated that they would be following up via email. They provided the facility with a document receipt, which Mr. Walker reviewed and signed. See Appendix C.

The EPA representatives summarized questions and concerns raised during the inspection. They noted that the Method 22 and Method 9 forms used by the facility do not include all information required by the official EPA forms. Additionally, the EPA representatives expressed concerns that the facility has not conducted its first periodic stack test as required by NESHAP Subpart SSSS. They provided the facility representatives with a Notice of Preliminary Findings form and explained that EPA may follow up with additional questions. See Appendix D.

The EPA representatives thanked the facility representatives for their time and cooperation during the inspection.

At approximately 3:30 pm, the inspectors departed from the facility.

As of October 22, 2024, representatives from Precoat Metals responded via email and provided the requested documentation to EPA. Additionally, on October 30, 2024, Mr. Singh notified MoDNR and EPA via email that the facility would be conducting stack testing the week of December 16, 2024 to

determine current VOC capture and destruction efficiencies for coil coating Lines 1 and 2. Mr. Singh provided copies of the testing protocols for both coating lines.

**6. Appendices**

- A. Digital Image Log
- B. Confidentiality Notice Form
- C. Document Receipt
- D. Notice of Preliminary Findings Form

## Inspection Report Sign-Off

**Lead Inspector's Name: Elizabeth Hubbard, ERG**

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|  Elizabeth<br>Hubbard | Digitally signed by<br>Elizabeth Hubbard<br>Date: 2024.12.18<br>10:09:26 -05'00' |
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Lead Inspector

**Supervisor's Name: Lance Avey, Acting Air Branch Chief, ECAD**

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Supervisor

## NOTICE OF PRELIMINARY FINDINGS

FACILITY NAME: Precoat Metals AFS NO.: \_\_\_\_\_  
FACILITY ADDRESS: 4301 South Spring Ave, St. Louis, MO  
63116  
INSPECTOR: Elizabeth Hubbard, DATE: 9/23/2024

An inspection of the above facility has just been completed. The purpose of the inspection was to determine compliance with the requirements of the Clean Air Act and regulations promulgated pursuant thereto. The following potential violations were identified:

| CITATION | DESCRIPTION                                                                                                                     |
|----------|---------------------------------------------------------------------------------------------------------------------------------|
|          | - Method 22 and Method 9 forms <del>do not</del> used by facility do not include all information required by official EPA forms |
|          | - Concerns that facility has not conducted first periodic stack test as required by amended NESHAP Subpart SSSS                 |

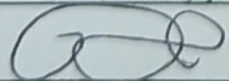
This Notice is provided to call your attention to those areas of potential noncompliance at the earliest possible time. This Notice does not constitute a Notice of Violation, Order, or Civil Action pursuant to Section 113 of the Clean Air Act, and may not be a complete listing of all violations which may be identified as a result of this inspection.

You may submit, in writing, within 10 days of receipt of this Notice, a description of all corrective actions taken and/or a schedule for completion of necessary corrective actions to be taken to:

Joe Terriquez Phone: 913-551-7105  
U.S. Environmental Protection Agency  
901 N. 5th St.  
Kansas City, Kansas 66101

Corrective actions you have taken may be considered in any subsequent U.S. EPA enforcement follow-up, to the extent allowed by Agency regulations, guidance, and policies.

The undersigned hereby acknowledges receipt of a copy of this Notice.

PRINTED NAME: Derek Walker  
TITLE: EHS Manager  
SIGNATURE:  DATE: 9-23-24