

**CLEAN WATER ACT INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 5**

Purpose: Pretreatment Industrial User (IU) Inspection

Facility: Matcor Metal Fabrication
400 Detroit Avenue
Morton, Illinois 61550

Date of Inspection: March 24, 2025

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Facility Representatives: Scott Tatlock, Plant Manager
Steve Ball, Maintenance Supervisor

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Inspector Signature: JENNIFER BUSH

Digitally signed by
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Date: 2025.05.14
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Approver Name and Title: Molly Smith, Supervisor, Enforcement and Compliance Assurance Branch

Approver Signature: MOLLY SMITH

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Date: 2025.05.14
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Purpose of Inspection:

The purpose of the inspection performed by the U.S. Environmental Protection Agency (EPA) was to investigate elements of the Clean Water Act (CWA) and associated pretreatment regulations with respect to Matcor Metal Fabrication located at 400 Detroit Avenue Morton, Illinois 61550.

Background:

Matcor Metal Fabrication (Matcor or Facility) is a sheet metal finishing facility, primarily for the agricultural and heavy machinery industry, located in Morton, Illinois. Matcor discharges process wastewater to the City of Morton. The Morton Wastewater Treatment Plant (WWTP) does not run a Federally approved pretreatment program. In addition, the Illinois Environmental Protection Agency (IEPA) does not run an approved pretreatment program. Therefore, the EPA is both the Approval Authority and the Control Authority for the Matcor Metal Fabrication facility, as defined in 40 C.F.R. § 403.3(c) and (f).

Under 40 C.F.R. § 403.12(e), Matcor is required to submit periodic reports on continued compliance to the EPA Region 5 Office on a semi-annual basis.

Inspection:

Opening Conference

Jennifer Bush, Gigi Giampietro, and Tatiana Frontera of EPA and Ying Hilton of IEPA arrived at the facility on March 24, 2025, at 12:40 p.m. CST. EPA and IEPA were met by Scott Tatlock (Plant Manager) and Steve Ball (Maintenance Supervisor). EPA staff showed their credentials and began the Opening Conference at 12:45 p.m. CST. The Opening Conference ended at 1:13 p.m. CST. The following information was provided to EPA and IEPA by Matcor staff:

- **General Plant Information:**
 - Matcor purchased the Matcor Metal Fabrication facility in Morton, Illinois in 2009. Prior to 2009, the facility was operating as Morton Metal Corporation since the late 1970's/early 1980's.
 - There are approximately 85 employees.
 - Matcor operates five days a week, Monday through Friday. There is one shift, beginning at 7:00 a.m. CST and ending at 3:30 p.m. CST. If needed, overtime is added on weekends.
 - The only incoming raw material received by the facility is steel.
 - Shipping and receiving of products occurs every day of the week.
 - Metal finishing only occurs during operating hours Monday – Friday.
 - Final products are shipped directly to customers nationwide, or to an outside source if international shipping is needed. The primary customers of Matcor include Caterpillar and John Deere.

- **Manufacturing Process:**
 - Matcor is a metal finishing facility for agricultural products and heavy machinery.
 - Matcor has two painting systems onsite, including liquid paint and powder coating.
 - In the powder coating area, products are hung on a conveyor line and will go through a 6-stage wash system prior to the powder coating.
 - Matcor receives water from the City of Morton and uses City water to create Reverse Osmosis (RO) water.
 - Chemicals are stored onsite where they are needed within the process lines.
- **Waste Generation:**
 - Prior to powder coating, products move through the 6-stage wash system. There is no overflow or backflow of stages into previous or next stages (all stages are separated, there is no drainage into other stages).
 - The 6-stage system is shut down each night, and all running water is stopped at the end of the shift each day.
 - The City water and RO water stages (Stage 1, 3, and 5) on the 6-stage wash line discharge to the floor drains/troughs, and then discharge to the City of Morton WWTP. The chemical stages (Stages 2, 4, and 6) discharge to a storage tote or tank prior to being hauled offsite.
 - The 6-stage wash line includes:
 - Stage 1: Cleaning Pre-Soak Stage;
 - Stage 2: Cleaning Stage;
 - Stage 3: City Water Rinse Stage;
 - Stage 4: Phosphate Stage;
 - Stage 5: RO Rinse Stage; and,
 - Stage 6: Sealer Stage.
 - Poly-Generics Co is used for hauled waste disposal.
- **Pretreatment:**
 - Process wastewater is generated by the Facility's wash line Stages 1, 3, and 5.
 - Hydrochloride is used in Stage 2 for pH adjustment prior to offsite disposal.
 - Sodium hydroxide is used in Stage 4 for pH neutralization prior to offsite disposal.
 - Chemicals are added to the stages manually by Matcor staff, specifically by the Team Lead or Line Specialists.
 - Matcor works with the Chemetall Group weekly to check wash line systems and chemical levels in the stages.
 - The process wastewater is discharged to the City of Morton WWTP.
- **Wastewater Sampling:**
 - The wash line Stages 1, 3, and 5 discharge to the City of Morton WWTP through the floor drains beneath the respective stages.
 - Matcor is continuously checking pH with a probe that is kept at the discharge location.
 - The pH is also manually checked daily in the individual stages.

- There is no flow meter onsite. Matcor uses the water bill from the City of Morton to determine flow and discharge rates.
- Matcor staff do not conduct any additional sampling outside of the continuous pH monitoring.
- Pace Analytical collects samples for analysis twice a year. Pace Analytical brings in the equipment needed for sample collection.
- Pace Analytical sends EPA the semi-annual sampling reports. Matcor receives the monitoring reports from Pace Analytical at the same time they are submitted to EPA. Matcor does not review the reports prior to submission to EPA.

Plant Walk Through

Matcor staff showed EPA and IEPA inspectors the following during the plant walkthrough:

- Powder Painting 6-Stage Wash Line:
 - Stage 1: Cleaning Pre-Soak Stage
 - City Water with Gardobond Add H. 7353.
 - Products are “dirtiest” at this stage.
 - Stage 2: Cleaning Stage
 - City Water with Gardoclean S 5413.
 - Hydrochloride is manually added by the Team Lead or Line Specialist at this stage in order to neutralize pH as needed.
 - Stage 3: City Water Rinse Stage
 - Reuse water in this stage to rinse products, and only the overflow is discharged to the City of Morton WWTP.
 - Stage 4: Phosphate Stage
 - City Water with Gardobond A 3015.
 - Neutralize the discharge of this tank with sodium hydroxide if needed. BTD told EPA the pH is typically already within permit limits, and pH adjustment isn’t needed.
 - Stage 5: RO Rinse Stage
 - A pH probe is located at this stage for continuous monitoring. Conductivity is also measured at this stage.
 - Overflow from Stage 5 is discharge to the floor drains below the stage, and flows to the discharge location to the City.
 - Stage 6: Sealer Stage
 - Gardolene D 6871.
 - This stage coats the steel to assist the powder painting in sticking to products.
- After products complete 6-stage wash line, the conveyor belt moves through a dry oven.
- Products are powder painted after the dry oven, then move to liquid painting if needed.

- Chemicals are staged in the area they are needed (i.e. near the stage that it will be used). There is no additional chemical storage.
- Exterior Wash
 - Wash bay used to rinse pieces that are too large to go through the paint line on the conveyor belt.
 - The floor drain in this area discharges to the City of Morton WWTP.
 - Matcor told EPA this floor drain leads to the same discharge point that is on the 6-stage wash line and is monitored with the same pH probe that is located near Stage 5. At the time of the inspection, EPA did not observe washing occur in this bay.

Closing Conference

EPA staff held a Closing Conference and requested Matcor provide EPA with the wastewater discharge permits issued from the City of Morton and IEPA. EPA left the facility at 2:15 p.m. CST.

Post-Inspection Activities

Matcor is required to submit periodic monitoring reports to the EPA, Region 5 office on a semi-annual basis. After the inspection, EPA reviewed the periodic monitoring reports submitted by Matcor from 2020 - 2025. The submission dates and EPA review notes are included below:

- January 3, 2020:
 - Sample name in laboratory analytical results indicated as “Manhole Composite”. Matcor staff told EPA during the March 2025 inspection the sampling location is at the drain inside the facility, near the 6-stage wash line.
- June 18, 2020:
 - Laboratory analytical results indicate the sampling address as the Matcor Metal Fabrication facility located at 1021 W Birchwood Street Morton, Illinois 61550. Sample name in laboratory analytical results indicated as “Manhole Composite”. Matcor staff told EPA during the March 2025 inspection the sampling location is at the drain inside the facility, near the 6-stage wash line.
- December 22, 2022:
 - Laboratory analytical results indicate the sampling address as the Matcor Metal Fabrication facility located at 1021 W Birchwood Street Morton, Illinois 61550. Sample name in laboratory analytical results indicated as “Manhole Composite”. Matcor staff told EPA during the March 2025 inspection the sampling location is at the drain inside the facility, near the 6-stage wash line.

Matcor has not submitted a periodic monitoring report since December 22, 2022.

Attachments

- A. Photo Log: Photos taken during U.S. Environmental Protection Agency Inspection of Matcor Metal Fabrication (March 24, 2025)

Matcor Metal Fabrication
EPA Inspection March 24, 2025
All photos taken by Jennifer Bush, Environmental Scientist, U.S. EPA
Camera: Ricoh WG-4 SR Adventure Proof, Serial No. 3101181



1: RIMG0249

Description: Stage 1 overview with holding tank in front. This stage is discharged to the WWTP.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:23 p.m. CST



2: RIMG0250

Description: Stage 2 Overview, with chemical information included. This stage is hauled offsite.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:29 p.m. CST



3: RIMG0251

Description: Close-up view of floor drains that run underneath the length of the paint line. Not all stages discharge to the floor drain. Discharge in the floor drains leads to WWTP.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:30 p.m. CST



4: RIMG0252

Description: Stage 2 discharge holding tank with totes on the right side for quarterly offsite disposal.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:31 p.m. CST



5: RIMG0253

Description: Stage 3 City Water overview with open holding/reuse tank in foreground

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:34 p.m. CST



6: RIMG0254

Description: Overflow from City Water tank (Stage 3) discharging to floor drains, which lead to City of Morton WWTP. This is a constant overflow.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025

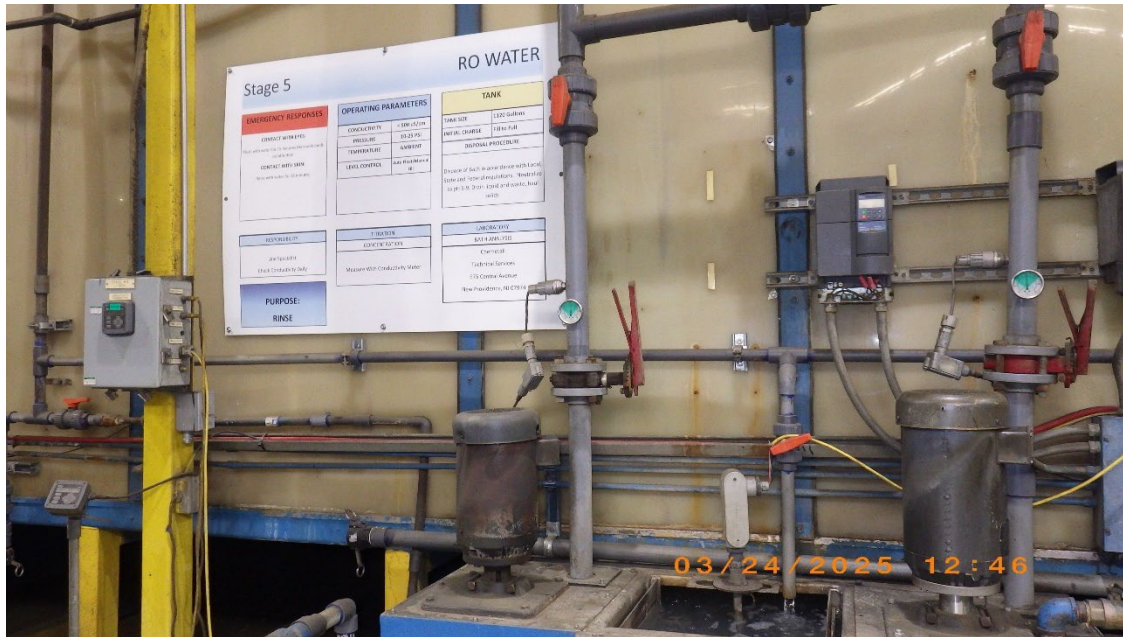


7: RIMG0255

Description: Stage 4 overview with holding tank (blue) in foreground. Discharge from this stage is hauled offsite.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:38 p.m. CST



8: RIMG0256

Description: Overview of Stage 5 with holding tank to overflow in front (overflow discharges to floor drains beneath tank, seen on left side of photo).

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:45 p.m. CST



9: RIMG0257

Description: Overflow drain off of Stage 5 (in background), with pH probe into sampling location in foreground.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025



10: RIMG0258

Description: Close-up of pH level (7.55 S.U.) at time of inspection

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:47 p.m. CST



11: RIMG0259

Description: Close-up of pH level (7.55 S.U.) at time of inspection. Same photo as Photo 10, without the flash

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:48 p.m. CST



12: RIMG0260

Description: Overview of the 6-stage wash line, with Stage 6 and blue holding tank in foreground. Trough floor drain underneath the wash line.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:50 p.m. CST

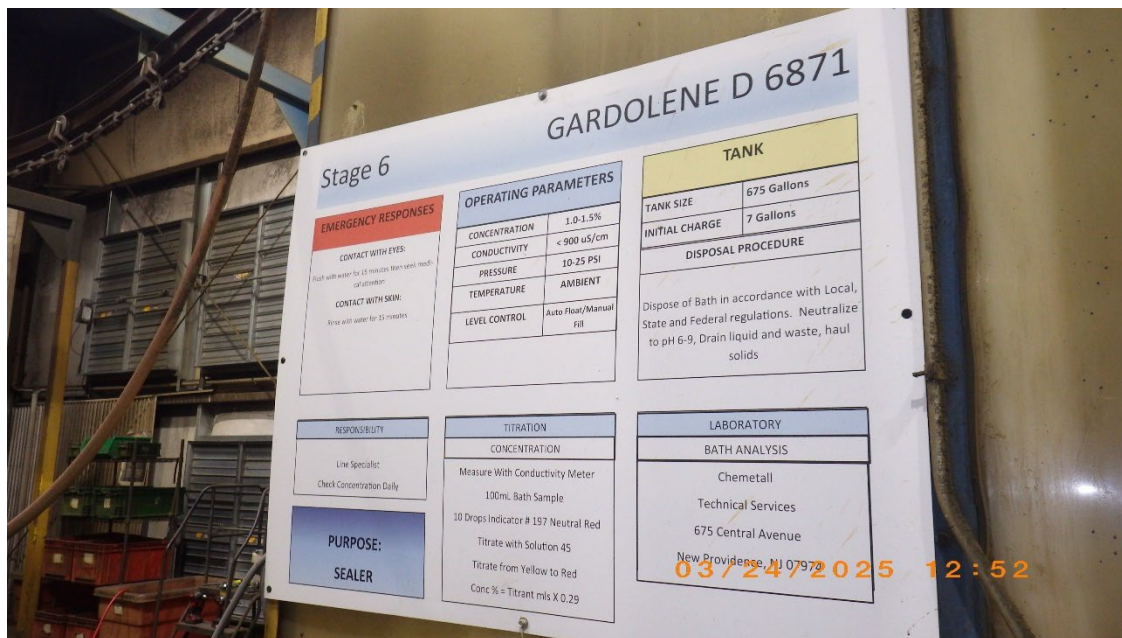


13: RIMG0261

Description: Overview of the 6-stage wash line, with Stage 6 and blue holding tank in foreground. Trough floor drain underneath the wash line. Same photo as Photo 12, with flash.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025



14: RIMG0262

Description: Overview of Stage 6, Phosphate Stage. The discharge from this stage is hauled offsite.

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025, 1:51 p.m. CST



15: RIMG0263

Description: Exterior Wash, used to rinse products that are too large to be hung on conveyor belt powder coating line. This floor drain discharges to the WWTP

Location: 6-Stage Wash Area, Matcor Metal Fabrication

Date/Time: March 24, 2025