



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

DATE: APR 24 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Midwest Pipe Coating, Inc., Schererville, Indiana

FROM: Sarah Clark, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Chief
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Midwest Pipe Coating, Inc. (Midwest Pipe)

Facility Location: 925 Kennedy Ave, Schererville, Indiana, 46375

Date of Inspection: April 8, 2019

EPA Inspector(s):

1. Sarah Clark, Environmental Engineer
2. Eleanor Kane, Environmental Engineer

Other Attendees

1. Lisa Brown, Air Compliance Inspector, Indiana Department of Environmental Management (IDEM)
2. Scott Luke Mitrisin, Air Compliance Inspector, IDEM
3. Jerome Pruzin, Safety/Engineer Manager, Midwest Pipe

Contact Email Address: pruzinj@midwest-pc.com

Purpose of Inspection: Assess compliance with the Clean Air Act and Federally Enforceable State Operating Permit

Facility Type: Metal pipe/rebar abrasive cleaning and coating plant

Arrival Time: 8:15 AM CDT

Departure Time: 11:00 AM CDT

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Credentials Presented
- ☒ CBI warning to facility provided

The following information was obtained verbally from Mr. Pruzin unless otherwise noted.

Company Ownership: Since approximately 1965, Midwest Pipe has been owned by a parent company named C.S. McCrossan.

Process Description:

Midwest Pipe's operations consist primarily of abrasion cleaning and applying coatings to metal pipe and rebar.

There are three Thin Film lines (Thin Film I-III) and a Rebar Coating line, all of which apply powder coatings. Thin Film I-III process ½-inch to 4-inch, 2-inch to 48-inch, and 2-inch to 24-inch diameter pipe or bar, respectively. The Thin Film process follows this order: pressure wash if needed; pre-heat to remove moisture; abrasive clean exterior of pipe in a Wheelabrator using steel grit; grind if needed; blowout if needed to remove residual particulates; heat to approximately 500°F; spray coating on exterior of pipe; water quench; label with ink printer; transfer to exit racks for shipping. The Rebar Coating line functions similarly. While the Thin Film lines process a single pipe or bar at a time, the Rebar Coating line can process up to 8 bars ranging in size from #3 to #11 bar (3/8-inch to 1 1/8-inch). The coatings consist of a fluidized powder/air mixture. Thin Film I can apply one coating, called fusion-bond epoxy (FBE), while Thin Film II and III can apply FBE as well as a second coating, called abrasion-resistant overlay (ARO), in series. Thin Film I and II use natural gas-fired ovens while Thin Film III and the Rebar Coating line use induction heating.

In Building #4, Midwest Pipe houses their I.D. (Inner Diameter) and O.D. (Outer Diameter) Paint Lines, in which liquid coatings are applied to pipe and cured. In the I.D. Paint Line, liquid coating (usually one with a glossy finish for improving flow through the pipe) is spray-applied while in the O.D. Paint Line, the liquid coating (usually an abrasion-resistant coating called Powercrete) is applied by hand. These Paint Lines can process pipe that has already been processed through a Thin Film line. The I.D. line includes its own abrasion cleaning step using a mobile 'stinger.'

Dust collectors are used to control particulate emissions from most abrasive cleaning, blowout, and spray coating applications.

Staff Interview:

This Midwest Pipe facility employs approximately 130 people and usually operates 20 hours per day, 5 days per week.

The additional ARO spray-coaters on Thin Film II and III can be rolled into and out of the process line as needed. The ARO spray-coater was added to Thin Film II about 15 years ago whereas Thin Film III included both the FBE and ARO spray coaters when the line was constructed about 5 years ago. When the Thin Film III FBE and ARO spray coaters were initially installed, each spray coater used 'integral' dust control (i.e., the spray booth and filter were one unit), but Mr. Pruzin said that the close proximity of the filters to the hot pipe led to the filters clogging often. Last year, Midwest Pipe switched to using a separate spray booth and dust collector for both the FBE and ARO coatings.

Liquid coatings arrive in 55-gallon drums. Midwest Pipe uses methylethyl ketone and isopropyl alcohol as cleaning solvents.

Mr. Pruzin conducts daily differential magnetelic and visible emission readings. Mr. Pruzin tracks solvent usage for estimating emissions of volatile organic compounds (VOCs), and he estimates the hazardous air pollutant (HAP) and VOC emissions from coatings based on emails he receives from the operations manager, who tracks coating usage. Mr. Pruzin reports these emissions on Midwest Pipe's quarterly reports.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations:

Only Thin Film III, the Rebar Coating Line, and the O.D./I.D. Paint Lines were operational during our tour.

We started our tour of Building 1, where we first observed the Thin Film I from start to finish. Wheelabrator was installed in approximately 1965. Mr. Pruzin said that grit can escape out of the open ends of the Wheelabrator. The natural gas-fired oven reaches approximately 600°F. The FBE powder is hopper fed from super sacs and pumped into the fluid bed, where the powder is mixed with air into a fluidized mixture prior to spray coating. The FBE spray booth uses an electric potential to direct and apply the coating. The sprayers are situated around the entire circumference of the pipe. The dust collector exhausts outside. There was an open ceiling vent and open door near the Thin Film I FBE spray booth. See photos #1-#8.

Also in Building 1, we observed Thin Film II from start to finish. Mr. Pruzin said that grit can escape out of the open ends of this Wheelabrator, too. The blowout station has a separate dust collector from that of the Wheelabrator. The natural gas-fired oven reaches 2000°F; a higher temperature is needed because the pipe is larger than that processed in Thin Film I. The fixed FBE and mobile ARO spray booths each have a dedicated dust collector that exhaust outside. In Thin Film II, the pipe can rotate, allowing for the sprayers to be positioned along one single face of the spray booth. there was an open door by the spray booths. The dust collectors for the blast

cleaners used in Thin Film I and Thin Film II are situated outside and exhaust outside. See photos #9-#14.

We walked past Building 2, which according to Mr. Pruzin, is dedicated to 'yard support,' such as preparing lumber to be used for shipping.

In Building 3, we observed Thin Film III blast cleaning, blow out, preheating, FBE spray application, and quench. The pipe passes through two 'orange boxes' which contain the induction heating elements used to preheat the pipe. We observed the dust collector used to control emissions from the FBE spray coat which exhausts indoors. The dust collector was operating at differential pressures (dPs) of 3.8 inches of water in the collector filter and 1.5 inches of water in the final filter. The ARO line was not connected or running at the time of our inspection. At the immediate outlet of the FBE spray booth, we observed the application of a yellow powder used to mark the bars with a yellow stripe. We observed fumes rising from this process. A long, small diameter, flexible duct led from the yellow-stripe application to a small dust collector which exhausted indoors. Mr. Pruzin checked with the employees to confirm that this dust collector was running; however, we could not hear the dust collector, nor were we able to collect a dP reading because there was no readout for us to check. A fabric canopy is positioned over the pipe at the exit of the FBE spray booth. A circular duct connected to this canopy that lead out a vent in the nearby wall. See photos and video #15-#24.

Also in Building 3, we observed the entire Rebar Coating Line. The blast cleaner dust collector, which exhausts indoors, was operating at a dP of 2.2 inches of water. The Rebar is preheated to approximately 500°F through induction heating. The spray booth dust collector, which exhausts outside, was operating at a dP of 2.1 inches of water. See photos #25-#28.

Entry into Building 4 required a respirator, so we only observed the activities in Building 4 from the doorways. The air inside was hazy. We observed the hand-application of a black coating at the O.D. Paint Line. We observed a fume hood at the end of the I.D. Paint Line. On the I.D. side of the building, we observed shelves of cans and pallets of barrels as well as what appeared to be a barrel tilted into another. See photos #29-#31.

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Summary of operations
2. Plant layout

CLOSING CONFERENCE

Requested documents:

- Safety data sheets and/or technical/product data sheets for the primary coatings
- Most recent stack test report
- Summary of operations
- Any notification sent to IDEM when the two powder collectors on the Thin Film III line were replaced
- March 2019 magnehelic/dP readings
- 2019 Q1 (Jan-March) liquid coating usage
- Copy of 2019 Q1 quarterly report with supporting documentation

SIGNATURES

Report Author: Sarah Clark Date: 4-18-2019

Section Chief: [Signature] Date: 4/24/19

Facility Name: Midwest Pipe Coating, Inc.
Facility Location: 925 Kennedy Ave, Schererville, Indiana
Date of Inspection: April 8, 2019

APPENDICES AND ATTACHMENTS

I. Appendix A: Digital Image Log

Facility Name: Midwest Pipe Coating, Inc.
Facility Location: 925 Kennedy Ave, Schererville, Indiana
Date of Inspection: April 8, 2019

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Sarah Clark	2. Date(s) of Inspection: April 8, 2019
3. Company/Facility Name: Midwest Pipe Coating, Inc.	4. Street Address, City, State: 925 Kennedy Ave, Schererville, Indiana
5. Number of Images: 31	6. Archival Record Location: CD-R labeled as "Midwest Pipe, Schererville, IN, Inspection Photos, April 8, 2019"

Image Number	File Name	Date and Time (CDT)	Description of Image
1	P4080001.JPG	4/8/2019 9:36	Thin Film I FBE spray coater
2	P4080002.JPG	4/8/2019 9:36	Thin Film I FBE spray coater
3	P4080003.JPG	4/8/2019 9:37	Thin Film I FBE spray coater dust collector magnehelic gauge
4	P4080004.JPG	4/8/2019 9:39	Thin Film I fluid bed (powder/air mixing)
5	P4080005.JPG	4/8/2019 9:39	Thin Film I powder coating and hopper
6	P4080006.JPG	4/8/2019 9:40	Thin Film I spray coater ceiling vent
7	P4080007.JPG	4/8/2019 9:42	Thin Film I FBE spray coater area
8	P4080008.JPG	4/8/2019 9:42	Thin Film I FBE spray coater area
9	P4080009.JPG	4/8/2019 9:50	Thin Film II FBE spray coater
10	P4080010.JPG	4/8/2019 9:50	Thin Film II ARO spray coater
11	P4080011.JPG	4/8/2019 9:51	Thin Film II ARO spray coater dust collector duct
12	P4080012.JPG	4/8/2019 9:51	Thin Film II ARO spray coater dust collector
13	P4080013.JPG	4/8/2019 9:53	Thin Film II ARO spray coater tracks
14	P4080014.JPG	4/8/2019 10:00	Dust collectors for abrasive cleaners on Thin Film I (left) and II (right)
15	P4080015.JPG	4/8/2019 10:10	Thin Film III FBE spray coater
16	P4080016.JPG	4/8/2019 10:10	Thin Film III FBE spray coater dust collector magnehelic gauges
17	P4080017.JPG	4/8/2019 10:11	Thin Film III FBE spray coater dust collector
18	P4080018.JPG	4/8/2019 10:11	Thin Film III FBE spray coater dust collector exhaust
19	P4080019.JPG	4/8/2019 10:11	Thin Film III FBE spray coater dust collector duct (left), ARO spray coater dust collector duct (right)
20	P4080020.MOV	4/8/2019 10:12	Thin Film III FBE spray coater outlet, yellow stripe application fumes
21	P4080021.JPG	4/8/2019 10:16	Thin Film III FBE outlet, canopy and duct
22	P4080022.JPG	4/8/2019 10:16	Thin Film III FBE outlet, yellow stripe application
23	P4080023.JPG	4/8/2019 10:18	Yellow stripe application dust collector
24	P4080024.JPG	4/8/2019 10:18	Yellow stripe application dust collector

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25	P4080025.JPG	4/8/2019 10:21	Rebar Coating Line blast cleaner dust collector dP
26	P4080026.JPG	4/8/2019 10:22	Rebar Coating Line spray coater dust collector dP
27	P4080027.JPG	4/8/2019 10:23	Rebar Coating Line spray coater
28	P4080028.JPG	4/8/2019 10:23	Rebar Coating Line spray coater dust collector
29	P4080029.JPG	4/8/2019 10:29	Building 4, view from I.D. Paint Line side
30	P4080030.JPG	4/8/2019 10:31	Cans, drums at I.D. Paint Line
31	P4080031.JPG	4/8/2019 10:31	Drums at I.D. Paint Line