United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

Air Branch Inspection Report
Unannounced Partial Compliance Evaluation
Trinity Marine Products Inc. (a.k.a. Arcosa) Plant No. 75
265 County Highway 346
Caruthersville, MO 63830
FRS# 110012469514

Inspection Date:
March 14, 2023

CHARLOTTE PAPP
Digitally signed by CHARLOTTE PAPP
Date: 2023.06.30 13:05:54 -05'00'

Charlotte Papp, Inspector, ECAD, Air Branch

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Tracey Casburn, Air Branch Chief, ECAD

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TABLES

APPENDICES

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INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the partial compliance evaluation (PCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements located in the code of federal regulations at 40 CFR Part 63, Subpart II, National Emission Standards for Shipbuilding and Ship Repair (Surface Coating). The inspection was part of the U.S. Environmental Protection Agency's (EPA) Creating Cleaner Air for Communities National Enforcement Compliance Initiative.

Table 1 lists the inspection team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	**Organization**	**Project Role**
Charlotte Papp	EPA, Region 7, ECAD, Air Branch	Lead Inspector
Todd Raney	MDNR Southeast Regional Office	Inspector

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	**Phone No.**	**Email Address**
Ricky Flippo, Safety Coordinator	573-333-1840	Ernest.flippo@arcosa.com
Brian Woodburn, EHS Manager Plant 75	573-333-6151	Brian.woodburn@arcosa.com
Shannon Wallace, EHS Manager Plant 73	-	Shannon.wallace@arcosa.com
Ted Carter, Marine Div. Safety Director	-	-
Jeri Shull, Corporate Env. Director	-	-

FACILITY OVERVIEW

According to the Arcosa Marine Products Title V operating permit (permit number OP2015-022), issued by Missouri Department of Natural Resources, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 3**):

Table 3. APPLICABLE REGULATIONS AND STANDARDS	
Code of Federal Regulation	**Standard Name**
40 CFR Part 63	Subpart II - National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)

According to the permit the facility is required to have 5 years of relevant records demonstrating compliance with the above standard.

Plant 75 has had two identified violations in the past 12 quarters, the first on December 3, 2020, and the second on October 24, 2022. Both were identified by the Missouri Department of Natural Resources (MDNR) and warning letters were issued in response. The facility falls under the Standard Industrial Classification (SIC) code 3731 (Ship Building And Repairing), and the North American Industrial Classification System (NAICS) code 336611 (Ship Building and Repairing).

FACILITY OPERATIONS SUMMARY

Arcosa Marine Products Plant 75 is a marine barge manufacturing facility. Coiled steel plate and steel angle are received and initially processed with shot blast and primer application. These processes are controlled via a dust collection system. The primed steel is then cut to shape and various subassemblies are joined together in the fabrication building. These subassemblies are then welded together to form the completed barge.

The barge is then moved to the paint building where it is painted per customer orders. Technicians use spray guns to apply the paint. The emissions from the painting process are vented through two banks of dry filters located on the side of the building.

The quantities of paints and solvents are tracked via an internal database. These quantities along with corresponding Safety Data Sheets (SDS) are then used to calculate emissions of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) to ensure facility compliance with 40 CFR Part 63 Subpart II.

FIELD ACTIVITIES SUMMARY

Prior to my arrival at the facility, I met with MDNR inspector Todd Raney at a nearby restaurant to discuss the facility and the scope of the inspection. As he had visited the facility before, I followed him in my vehicle from the restaurant to the facility security gate.

I arrived at the facility on March 14, 2023. I made entry at the security office at 8:31 am. Mr. Raney and I were greeted by Mr. Flippo and Mr. Wallace who led us to the Health and Safety office. I presented my credential to Mr. Flippo, and he began a facility safety briefing. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA specifically, to determine compliance with the conditions listed in Table 3. I explained that after asking for some general business information, I would observe work practices, process units, emission units, control equipment and review associated records demonstrating compliance with the permit. I explained that the facility could make a claim of business confidentiality and provided Mr. Flippo with a Confidential Business Information form (**Appendix A**). Mr. Flippo did not make a claim of confidentiality at that time.

I was given a facility tour by Mr. Flippo and Mr. Wallace. I was asked to wear the following personal protective equipment (PPE) for general facility safety: steel toed boots, hard hat, ear plugs, safety glasses.

We began the site tour at approximately 8:47 am with the fabrication shop. I observed the shot blasting unit which was not operating at the time. We continued to the fabrication shop where the processed steel is cut to shape.

I observed the plasma table 1 in operation as well as the automatic welding process.

As we returned through the fabrication shop, I observed primer application and drying ovens in operation.

We continued to the paint building where I spoke with Mr. Russel about operations. I observed the paint mixing area (photo 15), and Mr. Russel explained the process the facility staff use for determining mixing ratios and procedures for products. We discussed the filters used for the air circulation system (photos 17-22). I asked how often the filters were changed. According to Mr. Russel the facility changes them approximately 1-2 times per week, as needed. They visually inspect the filters to determine if it is time to change them. While the ventilation system was turned on, I observed both banks of filters as well as the pressure sensors located outside the building for each bank of filters. I tested both filters for negative pressure using a piece of paper.

We continued to the hazardous materials storage area.

Lastly, I went to the area used for Method 22 monitoring. At 10:36 am we returned to the Health and Safety office. We broke shortly thereafter so that I could inspect Plant 73 with Mr. Wallace.

I returned to the facility at 1:05 pm and discussed some facility operations, recordkeeping and procedures. We broke at 1:51 pm to allow time to prepare for the closing conference.

I conducted a closing conference with the staff listed in Table 2 at approximately 2:27 pm. I provided the facility with copies of Small Business Resource Information sheet. We discussed potential compliance concerns as well as records I was requesting. We established a deadline of March 31, 2023, to transmit the records (**Appendix B**). The records were transmitted on March 30, 2023, via Kiteworks (facility provided access to EPA), and are currently under review.

I departed the facility at 2:44 pm.

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions and activities were documented in field records. All photographs are attached as **Appendix C**. I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

I observed primer application with very little visible emissions above the unit.

The drying ovens were observed both operating and not operating. They appeared free of staining and visible emissions in both cases.

Chemical storage areas were well organized and labeled. Most chemical storage containers were on pallets and appeared free of damage.

I observed a large plume of white smoke at the onset of the process while plasma table 1 was operating. When I asked Mr. Flippo if that was a normal occurrence, he told me that the downdraft was not turned on at the onset of cutting, it was turned on afterwards and there was less visible emission coming from the unit. My review of the permit did not make it readily clear to which regulations the plasma cutting tables are subject. Further follow up may be warranted.

While reviewing the ventilation system and filters in the paint building, I held up a piece of paper to both filters and the paper stuck to the filters, demonstrating negative pressure.

I believed the Method 22 monitoring location was an adequate location to perform monitoring according to the regulatory method. However, Mr. Flippo said that he completes the test method and has not received training.

I reviewed the Safety Data Sheets and compliance calculations for Subpart II provided on March 30, 2023, via Kiteworks, and did not have any findings at the time of this report.

Potential Finding 1: Method 22 monitoring performed without adequate training
Observation Summary: Method 22 monitoring should be conducted by a trained individual to ensure accurate opacity readings.
Citation: Permit condition 2
Evidence: Field Notes
Description of Observation: During my inspection I asked the facility to explain to me how they comply with their opacity monitoring requirements. They informed me that staff perform Method 22 observations. When asked who currently performs these evaluations, Mr. Flippo indicated that he did. Later in the conversation it was mentioned by Mr. Flippo that he had never attended "smoke school", which is a common training for opacity readings. According to Mr. Flippo, when the facility marks "less than usual" that is an indication that the opacity reading was recorded as zero. Mr. Flippo did not mention the use of stopwatches or other devices to record the duration of the test or duration of visible emissions. Due to this lack of certification/training, it is possible that opacity readings at the facility are not being accurately recorded, and there is a potential for excess fugitive emissions not currently being reported or controlled.

Potential Finding 2: Potential overfills of the collection bags
Observation Summary: Substantial dust and debris was visible on the ground and surface of the control device, indicating either a potential leak in the system or maintenance issue.
Citation: Permit condition 4
Evidence: Appendix C, Photographs 8-11
Description of Observation: While examining the dust collection/baghouse system, substantial dust and debris was visible on the ground and surface of the collection bags, indicating a potential leak in the system. Permit condition 4 requires that the facility inspect filters on control devices for holes or other problems that could hinder the effectiveness of the filter. Given the volume of dust and debris visible near the unit, it is questionable whether the facility is performing these inspections as required, and adequately addressing the issue.

Potential Finding 3: Operating emissions unit without control device in place/operational
Observation Summary: Downdraft ventilation system was not turned on before operating Plasma Table 1
Citation: Permit condition 4
Evidence: Field Notes, Appendix C, Photograph 12
Description of Observation: Plasma cutting table 1 began operation without the downdraft ventilation system turned on. This caused a visible plume of emissions that were not being routed to a control device (photo 12). Mr. Flippo said shortly after beginning operation on

Potential Finding 3: Operating emissions unit without control device in place/operational
the plasma table, the staff turned on the ventilation system, and subsequently the plume of emissions was no longer visible. The permit requires that the permittee shall not operate emission units without control devices in place however Permit condition 4 does not specifically list the plasma cutting table 1. Further follow up may be warranted.

Potential Finding 4: Failure to operate filters in a manner consistent with good air pollution control practices for minimizing emissions
Observation Summary: Filters in the paint building are equipped with pressure sensors that are not being properly monitored as part of maintaining the system.
Citation: Permit condition 1
Evidence: Field Notes, Appendix C, Photographs 17-22
Description of Observation: While inspecting the paint building, I discussed the process by which staff maintain the filters. According to Mr. Russel, the ventilation system is turned on 15-20 minutes before painting begins and left running for 20-30 minutes after painting has ceased. Filters are changed approximately 1-2 times per week. When asked what method the facility uses to determine when the filters need to be changed, Mr. Russel replied that they visually determine when filters need changing. I asked if the system had any pressure sensors. He replied that there were pressure sensors, but facility staff do not monitor them. While I did confirm during my inspection that both banks of filters had a negative pressure when operating, it warrants further review if the visual inspections by facility staff are adequate in determining maintenance and function of the control device when other data is available to them to use.

End of Report.