



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
MacroSource, LLC - Creve Coeur, Creve Coeur, Illinois

FROM: Charles Hall, Environmental Engineer
AECAB (MN-OH)

THRU: Brian Dickens, Section Chief
AECAB (MN-OH)

TO: File, MacroSource, LLC - Creve Coeur, Creve Coeur, Illinois

BASIC INFORMATION

Facility Name: MacroSource, LLC - Creve Coeur,

Facility Location: 1139 Wesley Road, Creve Coeur, Illinois

Date of Inspection: 25 July 2023

EPA Inspectors:

1. Charlie Hall, U.S. EPA, Region 5, Air Enforcement and Compliance Assurance Branch, MN/OH Air Enforcement and Compliance Assurance Section
2. Silvia Palomo, U.S. EPA, Region 5, Emergency Response Branch 1, Chemical Emergency Preparedness & Prevention Section

Other Attendees:

1. Ryan Christopherson, Terminal Manager
2. Chad Hahn, Director of Operations
3. Michael Henry, Director of Engineering
4. Joshua Mills, Superintendent
5. Randall Sanders, Operations Team

Contact Email Address: Michael.Henry@macrosource.com

Purpose of Inspection: CAA 112(r) inspection

Facility Type: Nitrogenous Fertilizer Manufacturing

Regulations Central to Inspection: 40 C.F.R. Part 68

Arrival Time: 07:50 hrs CDT

Departure Time: 10:15 hrs CDT

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection.
- ☒ Sent Small Business Resource Information Sheet to Michael Henry by e-mail on July 31, 2023
- ☐ Small Business Resource Information Sheet not provided.
- ☒ Provided CBI warning to facility.

The following information was obtained verbally from the facility representatives.

Process Description: The facility stores anhydrous ammonia as a compressed liquid in on-site storage tanks or the facility brings anhydrous ammonia to the facility in tank trucks or railcars. In the aqua mixer, liquid anhydrous ammonia from the Anhydrous Ammonia Storage reacts with water to form aqueous ammonia. The aqueous ammonia then flows into the shell and tube heat exchangers. The aqueous ammonia from the aqua mixer then flows to a shell and tube heat exchanger where the aqueous ammonia is cooled by water flowing on the shell side. The aqueous ammonia then flows to the aqueous ammonia storage tanks. The facility pumps the finished aqueous ammonia solution through the shell and tube heat exchanger and to the aqueous ammonia storage tanks.

Staff Interview: The staff interview used the RMP Program Level 3 Process Checklist as an outline and focused on questions B23, B32, D3, D5, D14-18, D19-24, D26, D27, D28, D29, D31, D32, D38, D39, D40, D41, D42-46, D47-54, D58-61, D66, E1, G2, G3, G4, G5, G7, and H2.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations: The RMP Program Level 3 Process Checklist (Appendix B) summarizes the observations of whether MacroSource has the required documents in its Risk Management Plan.

Photos and/or Videos were taken during the inspection.

Field Measurements were not taken during the inspection.

RECORDS REVIEW

Before the inspection, the inspector requested the following documents:

1. Management structure in terms of RMP and who has responsibility for the different program elements and how that is documented;
2. Off-site Consequence Analysis supporting documentation;
3. Process Safety Information;
4. Process Hazard Analysis;
5. Operating Procedures specific to the covered process;
6. Lockout/Tagout procedures;
7. Training documentation on employees who operate and maintain the covered process;
8. Mechanical Integrity program procedures;
9. Management of Change written procedures;
10. Pre-Startup Safety Reviews completed in the covered process areas;
11. Compliance Audits, the two most recent audits, audit reports, findings of the audits, and how these findings have been resolved or corrected. (if applicable);
12. Incident Investigations performed for each of the covered processes, reports from the investigations, documentation on how the report findings and recommendations were addressed and resolved;
13. Employee participation plan of action regarding the implementation of the employee participation;
14. Hot work permit program/policy, examples of active permits issued for the processes;
15. Contractor policy, a list of contractors who have worked on or near the covered processes within the past two years, documentation on the safety performance and programs evaluated when selecting a contractor, work practices that control the entrance/exit or present of contractors, documentation on how applicable provisions of the emergency response program are explained to contractors; and
16. Emergency Response Plan or Emergency Action Plan.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility.

Requested documents: The inspectors did not request additional documents.

Concerns: The inspectors did not point out deficiencies or concerns during the inspection.

DIGITAL SIGNATURES

Report Author: **CHARLES
HALL**

Digitally signed by CHARLES
HALL
Date: 2023.08.11 09:03:57
-05'00'

Section Chief: **Brian Dickens**

Digitally signed by Brian Dickens
Date: 2023.08.14 13:37:49 -05'00'

APPENDICES AND ATTACHMENTS

A. Digital Image Log

B. RMP Program 3 Checklist

Facility Name: MacroSource, LLC - Creve Coeur
Facility Location: 1139 Wesley Road, Creve Coeur, Illinois
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APPENDIX A: DIGITAL IMAGE LOG

Photographer: Charles Hall Camera: Olympus Tough TG-6 EPA Bar Code: SZ4061

Image Number	File Name	Date and Time	Description of Image
1	P7250082.jpg	07/25/2023 10:43 hrs	Ammonia unloading
			
2	P7250083.jpg	07/25/2023 10:46 hrs	Ammonia Unloading. Manual shutoff and Emergency Shutoff valves on each liquid and vapor line.
			

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Image Number	File Name	Date and Time	Description of Image
3	P7250084.jpg	07/25/2023 10:48 hrs	East end of ammonia bullet and ammonia sensor. Grind spots for thickness ntests.
			
4	P7250085.jpg	07/25/2023 10:48 hrs	Internal safety valve actuator (black) Emergency shut off valve (red)
			

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Image Number	File Name	Date and Time	Description of Image
5	P7250086.jpg	07/25/2023 10:55 hrs	Piping (white) to ammonia bullet
			
6	P7250087.jpg	07/25/2023 10:55 hrs	Unloading area with containment.
			

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Image Number	File Name	Date and Time	Description of Image
7	P7250088.jpg	07/25/2023 10:57 hrs	Reactor and heat exchanger
			
8	P7250089.jpg	07/25/2023 11:05 hrs	Ammonia bullet. Pressure relief valves on top left. Ammonia sensor in middle of tank.
			

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APPENDIX B: RMP PROGRAM 3 CHECKLIST