



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

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Bluewater Thermal Solutions LLC

FROM: Manojkumar P Patel, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Bluewater Thermal Solutions LLC

Facility Location: 75 East Lake Street, Northlake, IL 60164

Date of Inspection: 01/25 and 1/26/2023

EPA Inspector(s):

1. Manojkumar P Patel, Environmental Engineer

Other Attendees:

1. Mike Andersons, Safety Manager, Bluewater Thermal Solutions LLC
2. Tyrone Pearson, General Manager, Bluewater Thermal Solutions LLC
3. Rutilio Torres, Maintenance Supervisor, Bluewater Thermal Solutions LLC
4. Jesus Quiroga, Union Representative, United Steelworkers Local 9777, District 7

Contact Email Address: tpearson@bluewaterthermal.com

Purpose of Inspection: Compliance Inspection for the Chemical Accident Prevention Provisions (CAPP)

Facility Type: Metal heat treatment NAICS Code: 332811

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

Arrival Time: 9:20 AM CST

Facility Name: Bluewater Thermal Solutions LLC
Facility Location: 75 East Lake Street, Northlake, Illinois 60164
Date of Inspection: January 25, 2026

Departure Time: 1:30 PM CST

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☐ Provided Small Business Resource Information Sheet
- ☒ Small Business Resource Information Sheet not provided. Reason: Small Business Category was not determined at the time of the inspection
- ☒ Provided CBI warning to facility

The following information was obtained verbally from the facility personnel unless otherwise noted.

Process Description:

Bluewater is a commercial heat treatment facility which utilizes electric and natural gas heat treated furnaces to perform several manufacturing processes to produce customized parts. These manufacturing processes include hardening of 410 stainless steel, annealing of all types of steel and cast iron, tempering and stress relieving, copper, silver, nickle brazing; copper stripping and alkaline washing.

The facility handles and stores liquefied Anhydrous Ammonia (CAS#7664-41-7). The anhydrous ammonia is stored outside in the 10,000 gallons tank and 1,000 gallons tank. The facility uses ammonia in the dissociators to convert ammonia vapors into nitrogen and hydrogen to be used in these furnaces for hardening process of steel.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

I observed the following information from the 10,000 gallons tank located outside of the facility:

Serial No.: 11153
National Board No.: 11153
Maximum Allowable Design Pressure: 250 PSI
Maximum Allowable Design Temperature: 300 Degree F
Head: 0.2307
Year Built: 1954

Percent Fill Level: 87%
Management System:

- The facility did not assign a qualified person for the implementation and integration of the risk management program elements.
- The facility did not document persons responsible for implementing individual requirements of the risk management plan and defined the lines of authority through an organizational chart.

Process Safety Information

- The process safety information for the technology of the process did not contain the safe upper and lower limits for temperatures, pressures, flows, or some other compositions.
- The facility's PSI did not contain an evaluation of the consequences of deviation.

Operating Procedures

- The facility provided two versions of the ammonia unloading procedures, one from the ammonia supplier, Air Gas, and the second unloading procedure is created by Bluewater.
- The standard operating procedures for dissociators #224, #226, and #228 did not contain normal operation, temporary procedures, emergency shutdown, emergency operation, normal shutdown, and startup following a turnaround or after emergency shutdown.
- I did not see consequences of deviations and the steps required to correct or avoid deviations from 3 ammonia dissociators.
- The facility did not implement safe work practices to provide for the control of hazards during the specific operations.

Training

- I did not see that the facility certified 3 employees that have the required knowledge, skills, and abilities to safely carry out the duties and responsibilities.
- The facility was not able to provide employee training records by means used to verify that employees understood the training.

Mechanical Integrity

- The facility was not able to ensure the frequency of inspections and tests of process equipment are consistent with applicable manufacturers' recommendations and good engineering practices.

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

Field Measurements: were not taken during this inspection.

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RECORDS REVIEW

The following is a list of documents that were provided during the site visit by electronic mail:

- Bluewater Risk Management Program (1 page)
- Anhydrous ammonia power point presentation (non-refrigeration)
- Plant #2 Ammonia Delivery Procedures
- Airgas Operating Procedures (Duplicate copy sent by Michael Andersons of Bluewater)
- LOTO and Confine Space Entry procedures
- Dissociators operating procedures
- API 510 Inspection Report for 10,000 gallon Anhydrous Ammonia Tank
- Phased Array Calibration Data report
- Management of Change Procedures (Section 10 of Bluewater RMP)
- Compliance Audit Report dated November 1, 2021
- Compliance Audit Report dated June 2017
- Ammonia Onsite Storage Review dated April 19, 2022
- Ammonia Onsite Storage Review dated January 13, 2011
- PHA Spreadsheet dated July 29, 2015, and April 10, 2019

CLOSING CONFERENCE

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

DIGITAL SIGNATURES

Report Author: Patel, Manojkumar  Digitally signed by Patel, Manojkumar
Date: 2023.03.24 11:13:57 -05'00'

Section Supervisor: SARAH MARSHALL  Digitally signed by SARAH MARSHALL
Date: 2023.03.24 11:44:16 -05'00'

Facility Name: Bluewater Thermal Solutions LLC
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APPENDICES AND ATTACHMENTS

1. Digital Image Log
2. Program Level 3 Checklist

Facility Name: Bluewater Thermal Solutions LLC
Facility Location: 75 East Lake Street, Northlake, IL 60164
Date of Inspection: January 25, 2023

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Manojkumar P. Patel	2. Archival Record Location: <i>OneDrive/Bluewater Thermal IL/ Inspection Pics</i>
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Image Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	P1260122.JPG	2023:01:26 13:07:21		Eye Washing Station
2	P1260123.JPG	2023:01:26 13:07:51		Liquid Ammonia Line (B/H of Eye Washing Station)
3	P1260124.JPG	2023:01:26 13:08:10		Liquid Ammonia Line (Closer View)
4	P1260125.JPG	2023:01:26 13:10:07		Dissociators Line Pressure and Temp Guage Valves
5	P1260126.JPG	2023:01:26 13:11:26		Dissociators Lines Gauges Temp and Pressure
6	P1260127.JPG	2023:01:26 13:11:42		Dissociators Temp Controller Display
7	P1260128.JPG	2023:01:26 13:13:10		Yellow Painted Line at Dissociators
8	P1260129.JPG	2023:01:26 13:22:50		Plant #3 Ammonia Line (from Plant #2)
9	P1260130.JPG	2023:01:26 13:26:50		Relief Valve inside Plant
10	P1260131.JPG	2023:01:26 13:27:02		Relief Valve (Inside the Plant)
11	P1260132.JPG	2023:01:26 13:29:00		10,000 Gallon Tank Volume Gauge
12	P1260133.JPG	2023:01:26 13:31:14		Relief Valves Pressure Guage
13	P1260134.JPG	2023:01:26 13:32:24		Relief Valve Pressure Gauge Display
14	P1260135.JPG	2023:01:26 13:32:30		Safety Valve on the 10,000 Gallon Ammonia Tank
15	P1260136.JPG	2023:01:26 13:34:31		Safety Valve Closer View
16	P1260137.JPG	2023:01:26 13:34:42		Safety Valves
17	P1260138.JPG	2023:01:26 13:34:57		Liquid Anhydrous Ammonia Line (Exterior View)
18	P1260139.JPG	2023:01:26 13:36:11		Anhydrous Ammonia Tank Location at the Facility
19	P1260140.JPG	2023:01:26 13:36:25		Anhydrous Ammonia Tank Location (Next to Transforme

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APPENDIX B: PROGRAM LEVEL 3 CHECKLIST

ATTACHED HERE.