REGION 5
CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
The Andersons Walton Terminal

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

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

TO: File

BASIC INFORMATION

Facility Name: The Andersons Walton Terminal

Facility Location: 8086 East County Road 900 South, Galveston, Indiana 46832

Date of Inspection: September 27, 28, and 29, 2023

EPA Inspector(s):

1. Manojkumar P. Patel, Environmental Engineer

Other Attendees:

1. Daniel Ard, Regional Environmental Health and Safety Manager, The Anderson Walton Terminal
2. Matt Vianco, Plant Manager, The Andersons, Logansport, Indiana
3. Patrick Seymoure, Operations Manager, The Andersons Walton Terminal
4. Mark Erny, Plant Manager, The Andersons Walton Terminal

Contact Email Address: Daniel_ard@theandersonsinc.com

Purpose of Inspection: Compliance with the Prevention of Accidental Releases found in Section 112(r) of the Clean Air Act (CAA), 42 U.S.C. § 741

Facility Type: Other Farm Products Raw Material Merchant Wholesalers

Regulations Central to Inspection: The Chemical Accident Prevention Provisions at 40 C.F.R. Part 68, commonly referred to as the Risk Management Program (RMP)

Arrival Time: 9/27/2023 (9:50 AM EST), 9/28/2023 (8:30 AM EST), 9/29/2023 (8:30 AM EST)
Departure Time: 9/27/2023 (5:30 PM EST), 9/28/2023 (4:00 PM EST), 9/29/2023 (10:00 AM EST)

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: Not a Small Business
☒ Provided CBI warning to facility

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

Process Description:

The Andersons Walton Terminal manufactures a liquid ammonium polyphosphate fertilizer which is produced by combining the anhydrous ammonia, phosphoric acid, and water in a controlled environment. The Walton Terminal also produces a fertilizer solution, called aqua ammonia (20% or more concentration) by combining water and anhydrous ammonia.

The Walton Terminal receives the anhydrous ammonia by truck and stores it into one of the three (3) 30,000 gallon bulk storage tanks. All three bulk storage tanks are kept at 85% fill capacity so they can hold almost 76,500 gallons of anhydrous ammonia. The anhydrous ammonia is a gas at ambient temperature and pressure. The anhydrous ammonia becomes a liquid when it is stored under pressure inside the bulk tanks.

The Walton Terminal manufactures aqua ammonia (> 20% ammonia concentration) for resale to the farmers in the local area. Aqua ammonia is a solution containing anhydrous ammonia and water. The facility stores aqua ammonia into two (2) one-million gallon tanks, one 750,000 gallon tank, two (2) 56,000 gallon tanks, and six (6) 30,000 gallon tanks.

The facility receives anhydrous ammonia by tanker trucks. All transfers are observed by Andersons personnel. Transfers from the bulk anhydrous ammonia storage tanks or the aqua storage tanks to the processing system or loading systems occur inside fixed steel pipes and transfer pumps. The bulk anhydrous ammonia storage tanks are protected by concrete barriers.

Staff Interview:

The Andersons Walton Terminal provided the following information during the inspection:

(1) The facility submitted the original RMP in or around June 21, 1999.
(2) The latest Process Hazards Analysis (PHA) was completed on September 23, 2023, and EPA requested the latest PHA and prior PHA revalidation copy.
(3) On December 1, 2021, anhydrous ammonia was released from equipment at the facility. The facility calculated approximately 261 pounds of ammonia released in the event. The released occurred around 8:10 AM local time.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

The following observations were made during the record review process:

Management System for Implementing Elements of Risk Management Program

EPA requested documentation of the management system for implementing elements of the RMP, as specified in 40 C.F.R. § 68.15(a). The facility was unable to provide records of a RMP management system at the time of the inspection.

The facility was unable to provide an assigned qualified person or position that has the overall responsibility for the development, implementation, and integration of (RMP elements. Also, no organizational chart or similar documents were provided to EPA showing the individual requirements of RMP.

Process Safety Information

EPA requested the facility to review Process Safety Information. EPA observed that based on the facility's document, the maximum intended inventory for the anhydrous ammonia and aqua ammonia quantities are inconsistent and need to be corrected. Also, the material of construction for the covered process equipment was not readily available.

EPA was unable to verify facility's electrical classification, relief system design and design basis, design codes and standards employed as facility informed to upload at the later time.

EPA also discussed the facility's documentation about the equipment complies with recognized and generally accepted good engineering practices (RAGAGEP) and EPA did not get the clear response during the inspection.

Process Hazards Analysis

The facility used Hazards and Operability Stady (HAZOP) analysis for the latest PHA revalidation. The facility used 6 nods in the latest PHA revalidation – (1) unloading of anhydrous ammonia into one of the three bulk tanks; (2) Anhydrous ammonia plus water charge to converters; (3) converter loading; (4) Ammonia changes to reactor; (5) Acid charge to reactor; and (6) reactor recirculation circulations. 2016 PHA revalidation listed aqua ammonia loading as a scenario in the what if PHA analysis but 2023 revalidation missed the aqua ammonia loading into the trucks as a nod. The facility personnel acknowledged this nod during the inspection. Also, the human factor is not considered in the latest PHA revalidation analysis.

EPA observed that the facility did not update or revalidate the PHA every 5 years to show it is consistent with the current covered process.

Operating Procedures

The company will upload all operating procedures for EPA's review.
The facility stated that all operating procedures are readily accessible by employees who are involved in the anhydrous and aqua ammonia covered processes.

Training

EPA requested Process Safety Management (PSM)/ RMP training records for all employees at the facility. Specifically, EPA requested that all records must contain information that each employee understood the training in operating processes and understood the required training, and means used to verify that employee understood the training.

Mechanical Integrity

The facility established and developed written procedures to maintain the on-going integrity of the process equipment. EPA did not verify the inspection and needed tests performed on all process equipment. The facility also needs to submit documents that it followed RAGAGEP for inspections and tests on all covered equipment.

Process Safety Valves (PSVs) on 2017 Process and Instrumentation Diagrams (P&ID) are different from the one installed currently. The facility provided two different kinds of PSVs operating procedures as well.

Management of Change

The facility informed EPA that it established and implemented written procedures to manage change to process chemicals, technology, and equipment. EPA reviewed a list of Management of Change (MOC) in the last 5 years and informed the facility to upload all information related to 4 MOCs. The facility stated that it will upload all information related to 4 MOCs.

Compliance Audits

EPA received a copy of the 2022 Compliance Audit and is reviewing the findings.

Hot Work Permit

EPA reviewed all hot work permits for the covered equipment under the RMP regulations issued by the facility from 2019 to September 27, 2023. EPA observed that the fire prevention and protection requirements in 29 CFR § 1910.252(a) have been implemented prior to beginning the hot work operations on all equipment.

Contractors

The facility uses a software program that tracks contractors related documents including the workman compensation and Occupational Safety and Health Administration (OSHA) 300A forms for evaluating contractor's safety performance. The facility will submit to EPA a pre-job safety checklist performed by the contractor (Paul Akers). The facility did not provide how it evaluates the performance of contractors.

Emergency Response

The facility informed EPA that Walton terminal is not designated as a "responding source" under RMP emergency response program. The facility stated that it did not share its Emergency Response Plan with the Cass County Local Emergency Planning Committee (LEPC).

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

Appendix A for the photo log.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Form U-1A for three bulk tanks;
2. RMP: Ammonia System Engineering Codes and Regulations (Doc# WI-PNG-0160);
3. Production Process Operating Limits & Consequences of Deviation (Doc # WI- WALPN-2014);
4. Walton Maximum Intended Inventory Revised December 16, 2014;
5. 29.5% Aqua Ammonia Production Process;
6. Aqua Ammonia Simplified Block flow Diagram;
7. Ammonium Poly Phosphate Production Process (Doc # 10-34-0 and 11-37-0);
8. TVA Pipe Reactor Process Schematic;
9. The Anderson's Facilities Electrical Classifications, Ventilation, and P & ID Review with respect to NH_3 Risk Management for Walton, Indiana Facility, Revision 1 dated September 27, 2014;
10. Hot Work Permit Copy dated June 6, 2022;

11. Installation of Continental A-400 Series Pressure Relief Valves (Doc #WI-WALPN-04) dated July 26, 2017;
12. Installation of Continental A-400 Series Pressure Relief Valves (Doc #WI-WALPN-05) dated July 17, 2017;
13. Continental NH_3 Products – Installation, Operation, Repair, and Maintenance Instructions – Product Series: A-400, A-400A, A-400-B, and A-400-C;
14. Installation of Rego AA3135UA250 Pressure Relief Valves (Doc # WI-WALPN-16) dated July 27, 2017;
15. installation of Ammonia System Transfer and Process Piping (Doc #WI-WALPN-42) dated August 4, 2017;
16. Facility Equipment Inspection Schedule (9 pages - not dated).

CLOSING CONFERENCE

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

Requested documents:

- 1999 Initial RMP Copy;
- Operating Procedures (converter shutdown, converter startup, NH_3 Safety Policy, Inspection and Maintenance Procedures, MOC Program, Walton Inspection and Maintenance Schedule);
- Walton PSM RMP Audit Report version 2 dated 7.17.2019;
- Walton HazOp analysis dated 10.17.2016;
- Anhydrous Ammonia Release Incident Reports dated 1 Dec 2021;
- Confined Space Entry Training;
- Contractor Safety Policy;
- Incident Reporting and Learning from Incidents;
- MOC Program;
- MOC Manager PSSR Form;
- PSM RMP Training Slides;
- Walton 2023 PHA Revalidation;
- Walton Ammonia Corrective Actions;
- Walton Anhydrous Ammonia Revised P & IDs (2017);
- Walton Aqua Alt. CAPS Population;
- Walton Aqua Alt. MARPLOT;
- Walton Aqua WC CAPS Population;
- Walton Emergency Action Plan 2023 Copy; and
- Walton PSM RMP Audit 2022 Report Copy.

DIGITAL SIGNATURES

Report Author: Patel, Manojkumar Digitally signed by Patel, Manojkumar Date: 2023.11.28 12:26:36 -06'00'

Section Supervisor: SARAH MARSHALL Digitally signed by SARAH MARSHALL Date: 2023.11.28 13:31:47 -06'00'

APPENDICES AND ATTACHMENTS

1. Appendix A – Digital Image Log

APPENDIX A: DIGITAL IMAGE LOG

1. **Inspector Name:** Manojkumar P Patel	2. **Archival Record Location:** **Inspection Pictures**

Image Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	P9280077.JPG	2023:09:28 09:47:51		Truck Unloading Anhydrous Ammonia into 3 Bulk Tanks
2	P9280078.JPG	2023:09:28 09:48:53		Valve Leaking on the Connection at Truck Unloading
3	P9280079.JPG	2023:09:28 09:49:04		Ammonia Vapor Releasing from the Hand Valve during Anhydrous Ammonia Unloading
4	P9280080.JPG	2023:09:28 09:51:19		Truck Pump Assembly (Under Tank)
5	P9280081.JPG	2023:09:28 09:52:14		Truck Tank Temperature and Pressure Gauges
6	P9280082.JPG	2023:09:28 09:52:54		Truck Tank Fill Gauge
7	P9280083.JPG	2023:09:28 09:53:48		Unloading Valve and Bleed Valve Ammonia Vapor Leak during unloading
8	P9280084.JPG	2023:09:28 09:55:05		Anhydrous Ammonia Vapor Hose for Vapor Recovery into Truck Tank
9	P9280085.JPG	2023:09:28 09:57:50		30,000 Anhydrous Ammonia Tanks #75 (Left), #76 (Middle), and #77 (Right)
10	P9280086.JPG	2023:09:28 09:58:40		Tank 76 Ammonia Labels Pilled off, Corrosion Observed
11	P9280087.JPG	2023:09:28 09:59:53		Tank 77 Hazards Labels
12	P9280088.JPG	2023:09:28 10:04:17		Tank 77 Volume Gauge
13	P9280089.JPG	2023:09:28 10:04:25		Tank 77 Pressure Guage
14	P9280090.JPG	2023:09:28 10:04:35		Tank 77 Name Plate
15	P9280091.JPG	2023:09:28 10:06:33		Tank 77 Bottom View Yellow - Vapor Line, Middle Orange - Aqua Line (29.50%), Left Orange - T Reactor Line
16	P9280092.JPG	2023:09:28 10:08:59		Tank 76 Bottom View Orange Aqua Line
17	P9280093.JPG	2023:09:28 10:09:09		Tank 76 Aqua Pressure Gauge with Fittings (2021 Ammonia Leak Incident)

18	P9280094.JPG	2023:09:28 10:14:45		Tank 75 Bottom PRV Body
19	P9280095.JPG	2023:09:28 10:14:55		Tank 75 Bottom View PRV Valve Body
20	P9280096.JPG	2023:09:28 10:15:05		Tank 75 Bottom View PRV Valve Body (Duplicate)
21	P9280097.JPG	2023:09:28 10:26:43		Tank 75 Bottom Piping - Welded (near view) and Threaded (far view)
22	P9280098.JPG	2023:09:28 10:26:51		Tank 75 Bottom Piping Scheduled 40 Pipe with Welded joint or Schedule 80 pipe with Threaded joint (unknown)
23	P9280099.JPG	2023:09:28 10:33:30		Anhydrous Ammonia Flow to Ammonia Chiller (Yellow Vessel)
24	P9280100.JPG	2023:09:28 10:35:43		Ammonia Chiller (Bottom Inlet)
25	P9280101.JPG	2023:09:28 10:35:47		Ammonia Chiller Top (Ammonia to T Reactor)
26	P9280102.JPG	2023:09:28 10:37:05		Ammonia Chiller Name Plate View
27	P9280103.JPG	2023:09:28 10:41:02		Anhydrous Ammonia from Chiller to T Reactor (Bottom Line)
28	P9280104.JPG	2023:09:28 10:43:14		Anhydrous Ammonia Check Valve
29	P9280105.JPG	2023:09:28 10:46:14		Ammonia Chiller (Finished Product Inlet)
30	P9280106.JPG	2023:09:28 10:46:25		Ammonia Chiller (Finished Product Outlet)
31	P9280107.JPG	2023:09:28 10:48:39		Aqua Ammonia Converter Line In
32	P9280108.JPG	2023:09:28 10:51:22		Aqua Charger (Bottom Ammonia Line; Top Water Line) to Condenser
33	P9280109.JPG	2023:09:28 10:52:33		Damage PSI Guage (Aqua Ammonia Inlet)
34	P9280110.JPG	2023:09:28 10:54:10		Condenser Supercharger
35	P9280111.JPG	2023:09:28 10:54:47		Supercharger Name Plate
36	P9280112.JPG	2023:09:28 10:54:59		Supercharger Temp Guage (Inlet and Outlet)
37	P9280113.JPG	2023:09:28 10:55:11		Supercharger Pressure Guage (inlet and Outlet)
38	P9280114.JPG	2023:09:28 10:56:55		Supercharger Ammonia Inlet (white on the right)
39	P9280115.JPG	2023:09:28 11:01:55		Tank #86 30K Aqua Tank #1

40	P9280116.JPG	2023:09:28 11:02:07		Tank #86 Manual Fill Level Guage
41	P9280117.JPG	2023:09:28 11:05:08		Aqua Ammonia (29.50%) Loading into the Truck
42	P9280118.JPG	2023:09:28 11:07:52		Aqua Ammonia Tank #2 30K gallons capacity
43	P9280119.JPG	2023:09:28 11:17:43		Aqua Ammonia (29.5%) 1Million Gallons Tank 3A
44	P9280120.JPG	2023:09:28 11:17:51		Aqua Ammonia Tank 3A Hazards Labels missing
45	P9280121.JPG	2023:09:28 11:18:02		Aqua Ammonia 29.5% 1 Million Gallons Tank 3B
46	P9280122.JPG	2023:09:28 11:18:11		Aqua Ammonia (29.5%) 1 M gallons tank 3B Hazards Labels Missing