U.S. ENVIRONMENTAL PROTECTION AGENCY

Region 1

EPCRA and CAA 112(r) Inspection Report

Date: November 2, 2022

From: Drew Meyer/Leonard Wallace, USEPA Inspectors

Through: Mary Jane O'Donnell, Chief

Waste and Chemical Compliance Section

To: File

Subject: Chemical Accident Investigation and Inspection, under Clean Air Act (CAA) Risk Management Plan (RMP) Section 112(r) and General Duty Clause (GDC) Section 112 (r) (1) and Emergency Planning and Community Right-To-Know Act (EPCRA) Sections 302-312, and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 103, of Agri-Mark Inc., Middlebury, VT

I. GENERAL INFORMATION

Facility Name: Agri-Mark Inc.

RMP Number: 1000 0016 0274

Address: 869 Exchange Street, Middlebury, VT 05753

Inspector Names:

Leonard B. Wallace, U.S. Environmental Protection Agency (EPA) Region 1

Drew Meyer, US EPA Region 1

Samantha R. Slayton, Safety Compliance Officer, State of Vermont Department of Labor ("VOSHA")

John Callan, Safety Compliance Officer, Vermont Occupational Safety and Health Administration (VOSHA)

Patrick McLaughlin, Chief of the VT Hazmat Team

Frank Chaffe, VT Hazmat Team

Inspection Date: July 19, 2022

Type of Inspection: Risk Management Plan (RMP) CAA § 112(r); CAA § 112(r)(1) General Duty Clause (GDC), CERCLA § 103, and EPCRA §§ 302-313 Compliance Evaluation Inspection

Purpose of Inspection: This inspection was conducted as a routine EPA CAA § 112(r)/EPCRA/CERCLA 103 compliance evaluation inspection. Agri-Mark was selected for an inspection since they reported 19,560 pounds. of anhydrous ammonia in their 2022 Program Level 3 RMP submission and because of an ammonia release that occurred at the facility on May 21, 2022, at approximately 0930 pm. An estimated 2,200 lbs of ammonia was released during the incident.

Current Owner: Agri-Mark

Current Operator: Agri-Mark

Primary NAICS codes: 311513 (Cheese Manufacturing)

Number of full-time employees: Approximately 100

Estimated Annual Sales: $50 - $100 million

II. GENERAL FACILITY DESCRIPTION

Agri-Mark Family Farms is a cooperative that started around 1980 having evolved from an earlier cooperative. Around 1992, Agri-Mark merged with Cabot Creamery Cooperative. More than one third of all the dairy families in New England are part of the current cooperative. The facility is not a union operation.

The Agri-Mark Inc. facility (Facility), located in Middlebury, VT, produces cheese and other milk-based products. The Facility is in a rural area but has local businesses and residences around it. Large refrigerated stainless steel above-ground tanks are located outside for storage of milk and milk-based products or by-products. Associated ammonia and glycol equipment is equipped on the rooftop, along with piping/pumps and evaporator-condensers and ventilation equipment.

The Facility's operation includes a single Ammonia Machinery Rooms (AMR) using anhydrous ammonia for its cooling properties to produce and store milk-based products. The facility includes ten Warehouse Coolers to store products and is also equipped with glycol chiller systems and equipment. Ammonia detection includes at least 21 detectors, located at locations throughout the manufacturing and storage operations.

Bulk acids and caustics are stored at various locations in the facility, mainly for sterilization of stainless-steel tanks and piping. The facility is equipped with emergency generators powered by propane and diesel and has a building where wastewater discharges are pre-treated prior to discharge.

III. IN-BRIEF/OPENING CONFERENCE

The EPA inspection team, including Leonard Wallace, EPA and Drew Meyer, EPA and John, Burton, Weston Solutions (Weston), entered the Facility at approximately 9:00 a.m. The inspection team presented identification to Aaron Page, Environmental Engineer and Thomas Herbick, V.P. Plant Operations, during the opening conference in the administrative office area. Inspector Wallace conducted the opening meeting and explained the reason and scope of the inspection. Inspector Burton explained that he would primarily be monitoring air during the inspection for ammonia using hand-held monitoring equipment.

Inspector Wallace presented the EPCRA Notice of Inspection to Mr. Herbick, who signed as the Recipient of the Notice. Mr. Herbick did not attempt to deny facility entry to the inspectors, and he did not invoke any claims of Confidential Business Information (CBI) for purposes of the inspection.

Facility Representatives:

Name	Title/Company	E-mail
Thomas Herbick	VP Plant Operations	Therbick@agrimark.net
Aaron Page	Environmental Engineer	Apage@cabotcheese.com
Jim Burke	Owner/NEAS	James.burke@neas-inc.com
Trevor Farr		Tfarr@cabotcheese.com
David Brault		Dbrault@agrimark.com
Jim Tringe		Jtringe@cabotcheese.com
Thomas Babielo		Tbabielo@cabotcheese.com

Inspector Wallace shared the following guidance documents with facility representatives:

Guide to the Emergency Planning and Community Right-to-Know Act (Fall 2020)

EPCRA Quick Reference Fact Sheet (Fall 2020)

List of Lists (EPA 550-B-20-001, August 2020)

Small Business Resource Information Sheet (February 2020, EPA-300-F-20-002)

National Response Center Oil and Chemical Spill Reporting flyer

Chemicals in Your Community brochure (EPA 550-K-99-001, December 1999)

Inspector Wallace stated that after the opening meeting, the inspectors would do a walk-through inspection of the refrigeration process and most other facility areas. He stated the inspection team would be taking photographs of items and areas of interest and a copy of all photographs taken would be available to facility personnel after the inspection.

Inspector Wallace asked for someone to summarize their activities at and around the ammonia release that occurred on May 21, 2022. Inspector Wallace was told by Aaron Page and Trevor Farr the following:

Mr. Farr explained that the ammonia release was first noticed at about 0730 pm when a local alarm indicating high level flow. The local alarm triggered local audio and visual alarms, and Matt Legacy responded first to the sight/sound of the alarm and immediately called Scott Emmell, Agrimark Refrigeration Technician (and possibly Alex Russel). According to Mr. Farr, Mr. Emmell explained to Mr. Legacy how to cycle the system back into normal operation mode. According to Aaron Page, the system had not yet released any ammonia, but the system was out of normal operation, and the alarm was activated indicating high level in a vessel. For approximately an hour and a half, facility personnel were working to get the system operating normally.

Around 0900 pm, system levels returned to normal levels so Mr. Legacy called Mr. Emmell again, and was told that the system could be re-started. Upon starting the system back up, at about 0905 pm, another alarm occurred (HMI Compressor #2), which triggered the ammonia visual and audio alarms in the Chiller Room.

Inspector Wallace asked if the ammonia system is separate from the fire detection system, and Mr. Page explained the systems were not independent, and that a notification to the 24-hr alarm service could be for either fire or ammonia. Mr. Page explained further that the alarming at this point was only going off in the AMR, not the entire facility and that operations were not limited, so workers continued to work in the building, without any knowledge of the ongoing incident. Mr. Legacy proceeded to the Chiller Room and looked through the door's window and could observe what looked to be an ammonia cloud in the room, so he called Mr. Emmell. Approximately 20-minutes later, Mr. Emmell arrived at the facility. Still, no evacuation had occurred from the facility, and no further notification was given to workers in the facility that a potential incident was in the process. Mr. Page stated that the facility's evacuation procedure is set to be put in place at 50 ppm ammonia.

A shift change occurred around 0800 pm while all of this was occurring. Mr. Farr stated that he got a text at about 0945 pm, notifying him of the incident. He said at that point he stated that he was under the impression that the ammonia release had not left the building.

At about 1000, according to Mr. Page, Mr. Emmell must have gone to the monitoring panel located in the Maintenance Area to read the panels alarming and ammonia levels.

Inspector Wallace questioned why alarming hadn't been occurring at other locations in the plant at this point, but no answer was provided. Mr. Farr stated that somewhere around 1000 pm, Mr. Emmell manually turned on the emergency ventilation, but Mr. Page said that he thought that the emergency ventilation had turned on automatically, so that when Mr. Emmell arrived, ventilation had already been occurring. Mr. Emmell went to the compressor area and saw a yellow beacon, indicating ammonia levels between 25 and 50 parts per million (ppm). Mr. Emmell donned an air purifying respirator and entered the AMR. (Mr. Page said that Mr. Emmell carried a hand-held ammonia detector upon entering. Once in the room, Mr. Emmell noticed a pump still running on the Chiller Package and turned it off manually and found a loose union that appeared to be the cause of the leak. Mr. Emmell observed that one of the Chiller pressure relief valves (PRV) had opened and tightened the loose union and tried to re-start the system.

Mr. Farr stated that by approximately 1030, the facility was unable to get the system to re-start, so third-party contractors were called. Mr. Farr stated that at least three PRVs had released and that two of the PRVs were able to be reset, but the third had to be replaced by their contractors in order to bring the system back into operation.

Mr. Farr notified the NRC on 5/23/22 and reported that the release began at about 0900 pm on 5/21/22.

IV. PHYSICAL INSPECTION

General Inspection

The EPA inspection team began the inspection by conducting a walk around the perimeter of the Agri-Mark facility observing miscellaneous equipment and operations exterior to the building. Next, the inspection team entered the building and observed operations inside the building including the AMR, rooftop and other operational areas. Observations inside and outside the facility include the following:

The Facility was lacking windsocks at all approaches to the building to inform emergency responders and evacuating personnel of the prevailing wind direction. Near the front of the building, between two "wings" of the building, the Inspection Team observed an unlabeled orange (approximately 1-gallon) open bucket collecting a liquid empty (see Photographs P1080884 and P1080887). This was later identified by facility personnel as collecting a water condensate. Pest stations in the area were un-secured.

Outside tanks, identified by facility personnel as containing milk or milk products, did not have proper pipe labeling on ammonia piping (see Photographs P1080890, P1080893, and P1080899). Piping insulation was breached on the tank closest to the overhead entrance door mark number 3 (red number) (see Photograph P1080893). These tanks were not marked with words describing their contents, or NFPA diamonds for the ammonia chilling the content (see Photographs P1080889, P1080891, and P1080899). The Ammonia Relief vent for these tanks was improperly directing ammonia

downward and the ammonia piping and valves on these tanks were not properly guarded against bumps (see Photographs P1080891, P1080894, P1080897, and P1080899). An electrical box was located next to the tanks and was not sealed and had a cable or wire hanging out of it (see Photographs P1080897 and P1080900).

None of the overhead piping between the Truck Unloading Building and the Main Plant was properly labelled (see Photographs P1080901, P1080902, P1080903, and P1080904).

In the Truck Cleaning Area, the inspection team observed open alkaline and acid products (stored incompatibles) while in use, without being in secondary containment (see Photographs P1080905, P1080909, and P1080910). The area was not equipped with an Emergency Shower, but was equipped with an eyewash, but the eyewash was located immediately next to electrical motors, posing a potential for electrification for users (see Photographs P1080905, P1080918, and P1080919). A transformer cabinet located outside of the area was not marked with its PCB status (see Photographs P1080920). The inspection team observed some wood hatch covering underground manways, identified as "Old Propane Tanks" not in use anymore. There were no bollards protecting the area of these underground propane tanks (see Photographs P1080922, P1080923, and P1080924).

Near the back side of the Truck Cleaning Area, a tank identified as an "Emergency Diverter Tank" was observed sitting on a foundational base smaller than the area of the tank's bottom (see Photographs P1080927, P1080928, and P1080930). The Emergency Diverter Tank had signs of leaking and rusting (see Photographs P1080928). Next to the Emergency Diverter Tank, the inspection team observed an insulated pipe with insulation that was breached and not labelled with words describing the material in contained. The insulated pipe was labelled with a very faded label indicating that it contained electric trace wire (see Photographs P1080928 and P1080929).

Next, the inspection team observed a small propane tank next to a small green building that had no NFPA label (see Photograph P1080936). A small can marked as "Methanol" was on the ground without secondary containment inside the fenced area of the underground Propane Tank enclosure (see Photographs P1080940, P1080941, and P1080942). The Underground Propane Tank fence was not labeled and had no NFPA signs, The fence gates were not equipped with a panic hardware and was locked with chain lock (see Photograph P1080943). None of the propane piping was labeled (see Photographs P1080940, P1080941, and P1080943).

Next, the inspection team observed what was described as an "Emergency Generator". Facility personnel explained that the generator was powered by diesel fuel. The generator was not marked with NFPA labels, and a propane tank was improperly stored inside the diesel generator trailer (see Photographs P1080946, P1080947, and P1080948). A battery charger being used inside the diesel generator trailer was not hard wired (see Photograph P1080950).

The inspection team observed that propane piping going into the Main Building was not properly labelled, also has a rope wrapped around it (see Photographs P1080944, P1080951, and P1080952). The valve controlling flow from this propane pipe was not secured and the propane pipe was not protected with bollards (see Photograph P1080951). Fencing around the facility's propane tank/vaporizer does not have any NFPA labeling (see Photographs P1080944, P1080953 and P1080955). The gate around the vaporizer was locked with a chain lock and the gate was not equipped with panic hardware and has only a single entrance/exit (see Photograph P1080953). Miscellaneous

containers were stored inside the fenced area and vegetation was abutting fencing on 3-sides (see Photographs P1080954 and P1080955).

While continuing to walk around the perimeter of the facility, the inspection team encountered many exterior doors. Some were labeled with numbers, and some were not. No exterior doors were marked with NFPA signs (see Photographs P1080962, P1080964, P1080965, and P1080972). The inspection team came to an area posted as a Main Power Disconnect sign for the Compressed Natural Gas (CNG). Facility stated that the CNG was disconnected in 2018, but the sign was still posted (see Photographs P1080973).

Inside the Boiler Room, the inspection team observed drums and pails of material not in secondary containment (see Photograph P1080975). Natural Gas piping outside that was used in the Boiler Room was not properly labeled (see Photograph P1080976). Nearby, a carbon dioxide tank was not equipped with bump protection, and did not have any pipe labeling, and no confined space labeling (see Photographs P1080977).

The door into the Pre-treatment Chemical building door had no NFPA label (see Photographs P1080980). The area was equipped with an outside emergency shower, but there was no emergency eyewash outside (see Photographs P1080981). The building was equipped with a red beacon outside but had no signage to indicate the alarm's meaning (see Photographs P1080983). Inside the Pre-treatment Chemical building the caustic soda tank was not properly labeled and its pipes was not labeled (see Photographs P1080985, P1080986, and P1080987). There were tripping hazards from hoses lying on the floor (see Photograph P1080984). Outside, the above-ground diesel tank was not properly labelled with NFPA signs, and its piping was not labeled (see Photograph P1080989).

The inspection team observed three argon gas cylinders improperly chained to egress outdoor stairs (see Photographs P1080991 and P1080992).

At the facility's High-Pressure Receiver (HPR) the inspection team observed a sign marked "two king valves inside fence right side" but it was not clear where the King Valves were specifically located within the piping run (see Photograph P1080994). There was insufficient aisle space around the HPR and only one way into the fenced area around the HPR (see Photographs P1080994, P1080996, and P1080997). The fencing enclosure was not equipped with panic hardware but was locked (see Photograph P1080994). The HPR was not secured to its foundational base and had no bump protection for the sight glass piping (see Photographs P1080995, P1080996, and P1090004). The HPR was not equipped with an emergency eyewash/shower near the HPR or the load ports for other chemicals into the building (see Photographs P1080993 and P1090013). The Ammonia Audio/Visual Alarm at both outside doors of the ammonia Chiller Room was not properly labelled (see Photographs P1090009 and P1090014).

Next the inspection team proceeded to the facility's rooftop. On the roof, some rooftop piping was missing insulation and other areas had breached insulation (see Photographs P1090042, P1090043, and P1090048). There was no secondary egress off the roof and no fall protection guardrails on roof see Photographs P1090024, P1090031, and P1090033). Ammonia piping was missing labeling or had different type of labels being used in various locations (see Photographs P1090019, P1090022, P1090023, and P1090040). Some of the ammonia piping support system on the roof was not properly secured to the building's roof (see Photographs P1090037, P1090038, and P1090039). Some of the

exposed piping and valves showed signs of pitting and rusting and are unpainted. Rooftop ammonia piping was painted with multiple colors (yellow, orange, white, green, and blue) (see Photographs P1090041, P1090052, P1090053, P1090055, and P1090070).

The inspection team observed a Thermal Syphon Receiver Tank and two Oil Pot Tanks on the rooftop (see Photographs P1090057, P1090058, P1090067, and P1090069). There were no emergency eyewash/shower stations on the roof. One of the Ammonia PRV header pipe made a 90 degree turns downward before connecting to the main PRV relief pipe (see Photographs P1090065). Additionally, the inspection team observed two PRV header pipe termination not directed upward to avoid negatively impacting personnel and one that terminates less than 7.25 ft below surrounding workspaces (see Photographs P1090015, P1090021 and P1090093 & Photographs P109093 and P109021).

The inspection team observed a tank identified by facility personas the "Second Diverter tank" that were not labelled and showed signs of rusty pipes (see Photographs P1090075 and P1090076). The Ammonia Audio/Visual Alarm on roof entrance doors into the Ammonia Machinery Room (AMR) was not properly labelled (see Photograph P1090017). The Emergency Shut Down Switch was located on the outside wall next to AMR roof door egress, but the Emergency Ventilation control switch was located on the inside of the AMR near roof door egress (see Photographs P1090100 and P1090106). The sign for the Emergency Ventilation Control Switch was located on the outside wall near the Emergency Shut down controls (without a switch) (see Photograph P1090075). The AMR door onto the roof did not have panic hardware from the AMR to the outside (see Photograph P1090099). The fresh air into the AMR come in from the top of the wall (see Photographs P1090017 and P1090100).

Information posted on the wall in the AMR did not have the amount of oil in the ammonia system, no pressure test information for the ammonia system, nor did the sign identify the company that did installation and testing of the ammonia equipment (see Photographs P1090101). None of the entrance doors into the AMR were not posted with any Piping and Instrumentation Diagram (P&ID) identifying emergency valves uniquely identified nor emergency shut down procedures (see Photographs P1090017, P1090115, and P1090121). Additionally, the door on the second floor into AMR was not equipped with any exterior handle to open door from the outside because the door open in the wrong direction (see Photographs P1090115, P1090116, and P1090117). There was an ammonia pipe that penetrations into the emergency stair well from the AMR and then returns into the AMR (see Photographs P1090107, P10900108, P1090109, and P1090123). The double doors in the AMR that led to the outside wall to allow equipment to brought into or out of the AMR was not properly sealed (see Photographs P1090059, P1090089, P10900107, P1090118, and P1090119).

On the second-floor shop area the inspection team observed improperly stored oxygen cylinders (see Photographs P1090126, P1090127, P1090128, P1090129, and P1090130). Additionally, a flammable storage cabinet is the area was not grounded (see Photographs P1090125 and P1090131). This shop included the read and control panel (see Photographs P1090132, P1090133, P1090134, P1090135, P1090136, P1090145, and P1090146). Nearby, a short distance away was an office, a computer read out for the ammonia system (see Photographs P1090138, P1090139, P1090140, P1090141, P1090142,

P1090143, and P1090144). During the inspection, Inspector Wallace was told that the system was not a remote readout and monitoring system for the ammonia system.

The Chiller Room was located on the ground level below the roof Condensers. The Chiller Room was where the ammonia leak occurred on May 21, 2022. The inspection team observed one of the pots and its associated piping in the Chiller Room was not protected against bumps (see Photographs P1090155 andP1090156). Some of the piping on the Chiller units had Armaflex insulation (see Photographs P1090175 and P1090178). While in the Chiller Room, the inspection team requested to review the Operators' Daily Inspection Logs and observed that the inspection log did not cover any inspections of the tanks or pipes located on the roof (see Photographs P1090176 and P1090177). Some of the Chiller Units had breached insulation (see Photographs P1090158, P1090165, P1090166, P1090169, P1090170, P1090171, P1090172, and P1090179).

Some of the Chiller Units had rusty vales and supports (see Photographs P1090170 and P1090173). The fresh air into the Chiller Room came in from the top of the wall (see Photographs P1080990, P1090013, and P1090153). The Emergency Exhaust from the Chiller Room came up directly under the roof condensers impeding the upward dispersion of ammonia into the atmosphere (see Photograph P1090088).

The inspection team observed evaporative condenser in the loading dock area and the Cold Storage Rooms that were not protected from bumps and impacts (see Photographs P1090196, P1090198, P1090199, and P1090200).

The Lead Acid Battery recharging room had no hydrogen detectors. At the time on the inspection the ventilation fan for the room was not working. Air monitoring determined that carbon elevated monoxide detector had readings, later determined to have resulted from a buildup hydrogen in the room. Patrick McLaughlin, Chief of the VT Hazmat Team request assistance from the Middlebury Fire Department with venting the room while the company worked on fixing the fan (see Photographs P1090207, P1090208, P1090210, P1090227, P1090229, and P1090234).

Outside the Lead Acid Battery recharging room next to the door enter the room there was a Hydrogen Fan switch box. The Hydrogen Fan switch was marked "Auto" on the top and "On" on the bottom of the light switch. The switch light was not working (see Photograph P1090206). At the time of the inspection no one from the company could explain the two setting on the Hydrogen Fan switch box.

In the Drum Chemical Storage Area some drums were observed without secondary containment, and some were open when not in use (see Photographs P1090214, P1090215, P1090216, P1090217, and P1090218). Signs of spillage on the floor in the Drum Chemical Storage Area (see Photographs P1090215, P1090216, and P1090218). Hoses used for distribution in Drum Chemical Storage Area not marked with unique identifiers (see Photographs P1090214, and P1090218).

The Bulk Chemical Storage Room was not marked with NFPA diamonds on the entrance door and is not equipped with an eyewash/shower outside of room (see Photographs P1090237, and P1090247). The pipes to the large storage tanks were not properly labeled (see Photographs P1090247). Some of the dispensing equipment was leaking and had chemical buildup (see Photographs P1090244, and P1090245).

V. OUT-BRIEF/CLOSING CONFERENCE

Inspectors Wallace and Meyer concluded the inspection with an out-brief to facility representatives, via a Microsoft Teams meeting on August 15, 2022, and discussed preliminary areas of concern identified during the inspection related to failure to maintain a safe workplace and lack of adherence to industry standards for the ammonia refrigeration system.

1) Facility was lacking windsocks at all approaches to the building to inform emergency responders and evacuating personnel of the prevailing wind direction.

2) All outside doors did not have NFPA diamonds on them.

3) All the outside tanks were not labeled with words to identify their contents or, when appropriate, marked with NFPA diamonds.

4) Fire and ammonia alarms were not independent.

5) Unlabeled orange bucket collecting unidentified liquid.

6) Outside tanks, identified by facility personnel as containing milk or milk products, did not have proper pipe labeling on ammonia piping. Piping insulation was breached on tank closest to the overhead entrance door.

7) Ammonia Relief vent on Milk tanks were directing ammonia downward.

8) Ammonia Piping and values on Milk tanks did not protect against bumps.

9) Electrical box next to the Milk Tanks were not sealed and a had a cable or wire hanging out of electrical box.

10) None of the overhead pipes running from the truck unloading building to the main plant building were labelled.

11) Incompatible chemical storage at the Truck Cleaning area (55-g acid red—next to alkaline foam cleaner)

12) None of the totes and drums of chemicals in the truck bay were in secondary containment.

13) No Emergency shower at the Truck Cleaning area (just an eyewash) and this eyewash was located immediately next to electrical motors.

14) Outside transformer did not list PCB status.

15) No bollards protecting old underground propane tanks.

16) Diverter tank was sitting on a foundational base that was too small. The tank and piping had significant rusting and was not labelled.

17) Next to the Diverter tank was an insulated pipe with insulation that was breached and not labelled with words describing the material in contained. The insulated pipe was also labelled that it contained Electric Trace wire. The label for the Electric Trace was faded.

18) Small propane tank next to small green building had no NFPA label.

19) Small Methanol metal can outside on ground with no secondary containment inside fenced area of the underground Propane Tank enclosure.

20) Underground Propane Tank was not labeled, was not equipped with a crash bar on fencing and was locked with chain lock. No labeling on the piping.

21) Propane Emergency generator had no labels and NFPA posting.

22) Propane tank was improperly stored inside the diesel generator trailer.

23) The diesel generator trailer had no NFPA labels.

24) Battery charger was not hard-wired inside the diesel generator trailer.

25) Propane pipe going into the building was not properly labelled, also had a rope wrapped around it. The valve on the propane pipe was not secure.

26) A Propane pipe was not protected with bollards.

27) Fencing around propane tank/vaporizer had no NFPA labeling. Gate was locked via chain lock—no panic hardware and only one exit. Miscellaneous containers were stored inside the fenced area. Vegetation was abutting fencing on 3-sides.

28) Exterior doors into production facility…some labeled with numbers some not. All Doors lacked NFPA diamonds. Some of the doors locked from outside. (Doors have panic hardware on the inside…. according to facility representatives). Some of the doors were equipped with exterior handles, some had handles removed.

29) Inspectors observed a Main Power Disconnect sign for the Compressed Natural Gas (CNG). Facility stated that the CNG was disconnected in 2018, but the sign was still posted.

30) The boiler room had drums and pails of material but no secondary containment.

31) Natural gas piping was not properly labelled.

32) CO2 tank had no bump protection, no pipe labeling, and no confined space labeling.

33) Pre-treatment Chemical building door had no NFPA label.

34) Pre-treatment Chemical building had an outside emergency shower, but no emergency eyewash outside.

35) The Pre-treatment Chemical building outside red beacon had no signage to indicate its function.

36) Inside Pre-treatment Chemical building the Caustic Soda tank was not propel labeled and pipes were not labeled.

37) Inside Pre-treatment Chemical building there were tripping hazards from hoses on floor.

38) The above ground outside diesel tank was not properly labelled and the piping was not labelled.

39) Three Argon Gas cylinders improperly chained to egress outdoor stairs.

40) Ammonia High Pressure Receiver (HPR) had a signed that read “two king valves inside fence right side” but it was not clear where the King Valves were located. There was only one way into the fenced area. The fencing had no panic hardware but was locked.

41) The HPR was not secured to the base. No bump protection for the sight glass piping,

42) There was insufficient aisle space around the HPR.

43) No Emergency eyewash/shower near the HPR or the load ports for other chemicals into the building.

44) Labelling for Ammonia Audio/Visual Alarm at both outside doors not properly labelled.

45) Some rooftop piping missing insulation and many other areas had breached insulation.

46) No secondary egress off the roof.

47) No fall protection guardrails on roof.

48) Labeling of ammonia piping not properly done. Some labeling missing and had three different kinds of ammonia labels in use on the roof piping.

49) Some of the ammonia piping support system on roof not secured.

50) Some of the roof exposed piping and valves showing signs of pitting and rusting and were not painted.

51) Ammonia piping on the roof was painted with multiple colors (yellow, orange, white, green, and blue).

52) No Emergency eyewash/shower stations on roof.

53) Pressure Relief Valve (PRV) header pipe termination must be directed upward and arranged to avoid negatively impacting personnel.

54) PRV heard pipe termination must be 7.25 ft above a roof or platform surfaces such as condenser catwalks that are occupied during service and inspection.

55) Second Diverter tank and its piping were rusted and not labelled.

56) Ammonia Audio/Visual Alarm on roof entrance doors to the Ammonia Machinery Room (AMR) not properly labelled.

57) The Emergency Shut down was located on the outside wall next to AMR roof door egress.

58) The Emergency Ventilation control switch was located on the inside of the AMR near roof door egress but there was a sign on the outside wall near the Emergency Shut down controls, without a switch.

59) Operators’ inspection log did not cover any inspections completed on the tanks or pipes located on the roof.

60) AMR door to roof did not have panic hardware.

61) Information posted on the wall in the AMR did not have the amount of oil in the ammonia system, no pressure test information for the ammonia system, nor the name of the company that did the installation and testing.

62) No Piping and Instrumentation Diagram (P&ID) were posted with emergency valves uniquely identified.

63) No Emergency shut down instructions were posted.

64) Ammonia piping from the AMR through the wall into emergency staircase not sealed.

65) Door from Maintenance Area into AMR swings in wrong direction.

66) Double doors in the AMR not sealed along the floor.

67) Maintenance Room Oxygen cylinders not secured, not isolated, and not grounded.

68) Some equipment stored within flooring markings that help to visually know what space need to be kept clear next to the electrical panels.

69) Ammonia Chiller Room insulation on vessels and on piping in dis-repair.

70) Some Ammonia piping covered in Armstrong Insulation needed to be removed and replaced with appropriate insulation material.

71) Ammonia pipes and oil pots in Ammonia Chiller Room not protected from impacts and bumps.

72) Ammonia Chiller Room had some valves and piping with flaking and rust pitting on them.

73) Chiller Room Air Intake venting was not at ground level.

74) Emergency Exhaust Fans from the Ammonia Chiller Room were located under the roof condensers.

75) Wooden pallets were stored inside the building.

76) Ceiling evaporators did not have bump protected and pipe labelling not adequate.

77) Battery Room lacked NFPA diamonds.

78) No hydrogen detector and no audio-visual alarm in the Battery Room.

79) Ventilation in the Battery Room not functioning.

80) Hydrogen was building up the Battery Room and the Middlebury Fire Department called to help reduce the amount of Hydrogen in the room.

81) Limited aisle spacing at Drum Chemical Storage Room.

82) Drum Chemical Storage Room had no secondary containment.

83) Drum Chemical Storage Room had incompatible storage of oxidizer and corrosive next to each other.

84) Drum Chemical Storage Room showed signs of spillage on the floor and several drum bungs were not properly secured in the drum.

85) Outside Bulk Chemical Storage Area had drums not marked as empty and stacked 5 high.

86) Outside Bulk Chemical Storage Area had Intermediate Bulk Containers (IBC) Totes with no secondary containment and no aisle space between totes.

87) Bulk Chemical Storage Area had a yellow beacon with no labeling indicating what the beacon indicated.

88) In the Bulk Chemical Storage Area there was Caustic Soda built up on piping and drums inside dispenser.

89) No Emergency alarms automatically notify any responders or personnel outside of local facility.

90) On May 21, 2022, no workers in the building were not notified of ongoing ammonia release.

91) The Ammonia alarm systems was not working during the ammonia release on May 21, 2022.

VII. FACILITY COMPLIANCE STATUS AND ELEMENTS OF PROOF - EPCRA

EPCRA Section 302

(1**)** Does facility have on-site, at any one time, extremely hazardous substances (EHS) at or above the TPQ? Yes, anhydrous ammonia, sulfuric acid, and nitric acid.

(2) List or obtain documentation: Inspectors' observations and 2021 Tier II report

(3) How was maximum quantity on-site determined or calculated? Facility reported 19,560 lbs. of ammonia on 2021 Tier II report.

EPCRA Section 303

(1) Facility Coordinator identified per Sec. 303 and date LEPC was notified? Facility coordinator identified in Tier II reports. Unknown when LEPC was notified (most recent Tier II report dated 2021).

EPCRA Section 311

(1) Is facility required to maintain MSDSs under the OSHA Hazard Communication Standard 29 CFR 1910.1200 (no specific chemical list)? Yes

(2) Has the facility conducted a comprehensive audit to identify SDS chemicals on-site and to determine if 500 lb./10,000 lb./TPQ thresholds were exceeded? Yes

(3) List of OSHA chemicals manufactured, processed, used/stored, and obtained? Yes the Facility provide a list.

(4) How were the maximum amounts determined? **Facility determine maximum amounts.**

(5) Section 311 info supplied to the:

SERC (Y/N): Yes

LEPC (Y/N): Unknown

Local Fire Department(Y/N): Unknown

Date Unknown

Chemical List Unknown

SDSs Yes

(6) Have any new hazardous chemicals, mixtures, or substances been introduced into the facility in the last 5 years? Unknown

(7) If yes, has the facility submitted updated lists or SDSs? N/A

EPCRA Section 312 (due March 1 of year following reporting calendar year)

(1) Was Tier II form submitted for all required chemicals? Yes

(2) What procedures are used to update Section 312 information for annual submittal and to ensure additional or new chemical data is submitted within 90 days? Facility has previously submitted Tier II reports to SERC annually via electronic submission.

(3) Was facility aware of annual reporting requirements under Section 312? Yes

(4) Had the facility completed and signed a list of all reportable chemicals on site on date of the inspection? Yes

(5) Table of EPCRA 312 Reportable Substances:

Chemical Name	CAS Number	EHS	Maximum Amount (Pounds)
3D Trasar 3DT222 - Cooling Tower Treatment		No	390
Alpet D2	67-63-0	No	817
Alpet E3		No	817
Ammonium Hydroxide	1336-21-6	No	9,500

Anhydrous Ammonia	7664-41-7	Yes	19,560
Argon	7440-37-1	No	189
Carbon Dioxide	124-38-9	No	12,000
D-Scale No.556		No	1,178
Defoamer No.553		No	1,409
Detbuild No.394		No	940
Enrich No.299		No	2,100
Enzyterge		No	950
Fuel Oil #2	68476-30-2	No	184,500
Grease X No.367		No	990
H-550 Microbicide	111-30-8	No	450
Hydri-Chill FG 50%		No	1,880
Hydri-Cleanse No. 325		No	910
HydriBlend Red No 145	111-46-6	No	460
Hydriflux NP No. 366		No	15,665
Hydrisoak No.180		Yes	960
Hydrogen Peroxide	7722-84-1	No	1,545
Hydroxysan PLUS/Per-Ox		Yes	13,785
Iodosan No.485	7553-56-2	No	472
Lead Acid Battery		Yes	34,000
Liquid Fury No. 270		No	1,058
Membrane Additive No. 531	10117-38-1	No	679
Mississippi Lime		No	40,000
Multiquat No.455		No	454
Nalco 1853		No	465

Nalco 2597		Yes	1,350
Nalco 2B11		No	2,646
Nalco BC1011		No	1,640
Nalco GR-105		No	4,612
New & Used Oil		No	6,000
Nexguard 22310		No	1,539
Orbit No.363		No	960
PeroxyFoam	7722-84-1	No	1,380
Potassium Hydroxide	1310-58-3	No	10,400
Propane	74-98-6	No	126,000
Provox	15630-89-4	No	2,200
Score No. 312		No	975
Sodium Hydroxide 30%	1310-73-2	No	87,613
Stabrex ST70		No	459
Sulfuric Acid 93%	7664-93-9	Yes	4,100
Supressor		No	880
Surchlor	7681-52-9	No	20,000
Ultra LFA No 176 (Nitric Acid)	7697-37-2	Yes	69,589
Ultrasolv		No	435
Ultrion 8187		No	8,900
Vibrant No. 173		No	1,004

Reported on RY2021 Tier II report.

IX. ENFORCEMENT HISTORY

The facility has no reported violations in ECHO.

X. ENVIRONMENTAL JUSTICE

The national EJSCREEN mapping tool indicates that the Facility is not located in area of Environmental Justice interest.