United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report
Citrosuco North America, Inc.

Lake Wales, Florida
March 7, 2024

1.0 Introduction

The U.S. Environmental Protection Agency's efforts to reduce the likelihood and severity of chemical accidents includes planning and legislative initiatives such as the National Contingency Plan, the Emergency Planning and Community Right-to-Know Act (EPCRA), and the Accidental Release Prevention requirements under Section 112(r) of the Clean Air Act (CAA), as amended in 1990. This report outlines an inspection of the Risk Management Program (RMP) as mandated by Section 112(r)(7) of the CAA.

The focus of this inspection was to assess the RMP for the ammonia refrigeration process at the Citrosuco North America, Inc., facility (Citrosuco) located in Lake Wales Florida, of Polk County. This facility was selected for inspection because it has not been inspected in the last five years under the RMP. The inspection, which was conducted on March 7, 2024, consisted of an examination of program documentation as well as site reviews of various aspects of facility operations. Personnel from the facility participated throughout the inspection. Numerous documents were provided for review off-site. This report will provide a background of the facility and a listing of observations.

2.0 Background

The Citrosuco facility is located in Lake Wales, Florida. This facility uses anhydrous ammonia for refrigeration purposes. The refrigeration process, consisting of piping, valves, and equipment, cycles ammonia through various physical states (high pressure liquid, low pressure liquid, low pressure vapor, high pressure vapor, then back to high pressure liquid) in order to provide refrigeration for cold food storage. The process is regulated as program level 3. According to facility records, the facility has a maximum of 111,000 pounds of ammonia on site. The ammonia refrigeration process at the facility is subject to the RMP requirements of 40 C.F.R. Part 68 and EPCRA Section 302. The background specifics are summarized as follows in Table 1.

TABLE 1: Inspection Information Summary

Inspection Team

Lead Inspector: Justin Stark, U.S. EPA Region 4
Inspector: Jordan Noles, U.S. EPA Region 4
Inspector: Callie Sotolongo (Inspector-In-Training), U.S. EPA Region 4
Inspector: Mark Briggs, Eastern Research Group, Inc. (ERG)

Inspector: Liam Prendergast, ERG
Inspector: Grant Harvey, Florida Division of Emergency Management (FDEM)
Inspector: Chris Stevens, FDEM
Inspector: Kevin Hardy, FDEM
Date of Facility Visit: March 7, 2024

Facility Identification

Name: Citrosuco North America, Inc.
Street Address: 5937 Highway 60 East
City: Lake Wales County: Polk State: Florida Zip: 33898
EPA Facility ID No: 1000 0015 2078
Dun & Bradstreet (D&B) No: 108848680
Latitude: 27.895944
Longitude: -81.490444

Name, address and phone of corporate parent company:
Owner/Operator: Citrosuco
Mailing Address: 305 Rua Joao Pessoa Matao
City: Sao Paulo State: Sao Paulo Zip: 15990
Phone: NA

Name, title, and email of person responsible for 40 C.F.R. Part 68 implementation:
Name: Nick Emanuel
Title: Chief Executive Officer
Day phone: (863) 528-4693
24-hour Phone: (863) 528-4693
Email: nemanuel@citrosuco.com

Name and title of emergency contact:
Name: Nick Emanuel
Title: Chief Executive Officer
Day phone: (863) 528-4693
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Name and titles of stationary source personnel involved in site inspection *(accompanied site tours, provided documents and explanations):*

Name: Brett Hedstrom
Title: Consultant
Phone: (727) 776-2620
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Name: Mayra Martinez
Title: Quality Assurance

Phone: NA
Email: foodsafetycompliance@citrosuco.com

Name: Richard Smith
Title: Lead Ammonia Refrigeration Tech
Phone: (863) 528-2728
Email: r53545@gmail.com

Name: Carlos Alvarez
Title: NA
Phone: (863) 528- 4735
Email: calvarez@citrosuco.com

Note: This is a not a union facility.

Date and Program Levels of Submitted Risk Management Plan (RMP)

Date of initial submission: June 28, 1999
Date of most recent submissions: July 7, 2014
Process: Ammonia Refrigeration
Process ID: 1000056189
Program Level as reported in RMP: 3
NAICS code: 311411 (Frozen Fruit, Juice, and Vegetable Manufacturing)

3.0 Observations

The inspection of the Citrosuco facility evaluated various sections of the RMP regulations (40 C.F.R. Part 68, Program Level 3) and the inspection checklist included in "Guidance for Conducting Risk Management Programs Inspections under Clean Air Act Section 112(r)." The inspection began with an opening discussion of facility operations. The discussion was followed by a tour of the facility's ammonia refrigeration process areas. EPA inspectors then requested paperwork associated with the facility's Risk Management Plan (RMP). The documents were reviewed by EPA inspectors on-site and provided for review off-site. An inspection out-brief was conducted where EPA inspectors described their observations. Observations from the RMP inspection at the Citrosuco facility are discussed below:

1. 40 C.F.R. § 68.65(d)(2) requires the owner or operator to document that equipment complies with recognized and generally accepted good engineering practices (RAGAGEP).

    - Inspectors observed that multiple entry/egress doors between Ammonia Machinery Rooms (AMRs) 1 and 2 were not secured to prevent unauthorized personnel from entering. A lack of doors and signage restricting access to the AMRs is inconsistent with the following RAGAGEP:

- Section 6.3.3 of American National Standard Institute/Institute of Ammonia Refrigeration (ANSI/IIAR)2 (2021) states, “Access to the machinery room shall be restricted to authorized personnel. Signage on machinery room doors shall comply with 6.15.”

- Section 7.3.3.4 of ANSI/IIAR-9 (2020) states, “Access to a machinery room shall be restricted to authorized personnel. Signage on machinery room doors shall comply with Section 7.2.9.”

- Section 8.11.8 of American National Standard Institute/The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ANSI/ASHRAE)15 (2016) states, “Access to the refrigerating machinery room shall be restricted to authorized personnel. Doors shall be clearly marked or permanent signs shall be posted at each entrance to indicate this restriction.”

- Inspectors observed that multiple entry/egress doors between the AMR and the building exterior were not tight-fitting, such that there were visible gaps present. A lack of tight-fitting doors to/from the AMR is inconsistent with the following RAGAGEP:

  - Section 6.2.1 of ANSI/IIAR-2 (2021) and Section 7.3.9.2 of ANSI/IIAR-9 (2020) state, “Machinery room doors shall be self-closing and tight fitting. Doors that are part of the means of egress shall be equipped with panic hardware and shall be side hinged to seeing in the direction of egress for occupants leaving the machinery room. Where the machinery room is not provided with sprinklers, doors communicating with the building interior shall be 1-hour fire rated. Doors to the outdoors shall be fire-rated where required by the Building Code based on the fire rating required for exterior wall openings.”

  - Section 8.11.2 of ANSI/ASHRAE-15 (2016) states, “Each refrigerating machinery room shall have a tightfitting door or doors opening outward, self-closing if they open into the building and adequate in number to ensure freedom for persons to escape in an emergency. With the exception of access doors and panels in air ducts and air-handling units conforming to Section 8.11. 7, there shall be no openings that will permit passage of escaping refrigerant to other parts of the building.”

- During the facility walk-through, the inspection team observed the absence of Emergency Stop (E-Stop) and Emergency Ventilation Control actuation buttons outside of the primary AMR entry/egress doors. Specifically, in AMR 1, the E-Stop and Emergency Ventilation actuation buttons were inside of the AMR. The E-stop for AMR 2 was exterior to the AMR but roughly 300 feet from any entrance to the AMR. A lack of these controls outside of and adjacent to the designated principal AMR door is inconsistent with the following RAGAGEP:

- Section 6.12.1 of ANSI/IIAR-2 (2021) and Section 7.3.11.1 of ANSI/IIAR-9 (2020) state, "A clearly identified emergency shut-off switch with a tamper-resistant cover shall be located outside and adjacent to the designated principal machinery room door. The switch shall provide off-only control of refrigerant compressors, refrigerant pumps, and normally closed automatic refrigerant valves located in the machinery room. The function of the switch shall be clearly marked by signage near the controls."

- Section 6.12.2 of ANSI/IIAR-2 (2021) and Section 7.3.11.2 of ANSI/IIAR-9 (2020) state, "A clearly identified control switch for emergency ventilation with a tamper-resistant cover shall be located outside the machinery room and adjacent to the designated principal machinery room door unless the continuous ventilation operates at a rate at or above that required for emergency ventilation. The switch shall provide "ON/AUTO" override capability for emergency ventilation. The function of the switch shall be clearly marked by signage near the controls."

- Section 7.3.13.2.1 of ANSI/IIAR-9 (2020) states, "Mechanical exhaust ventilation system shall be automatically activated by ammonia leak detection in accordance with Section 7.3.12.2 and shall be manually operable."

- The inspection team noted that National Fire Protection Association (NFPA) diamonds were not present at or near the entrances to AMR 1 or AMR 2 to warn emergency responders. During the facility walk-through, the inspection team also observed that multiple pieces of ammonia equipment outside the AMRs were not affixed with NFPA diamonds. Specifically, the AMR 1 high-pressure receiver (HPR), the pump package receiver in the process area and the low pressure recirculator associated with AMR 2 did not have NFPA diamonds. A lack of the NFPA diamonds on AMR entry/egress doors and on ammonia refrigeration equipment outside these areas is inconsistent with the following RAGAGEP:

  - Section 7.2.9.1.1 of ANSI/IIAR-9 (2020) states, "Buildings and facilities with refrigeration systems shall be provided with placards in accordance with NFPA 704."

  - Section 4.3* of NFPA 704 (2012) states, "Signs shall be in locations approved by the authority having jurisdiction and at a minimum shall be posted at the following locations:

    1. Two exterior walls or enclosures containing a means of access to a building or facility;

    2. Each access to a room or area;

3. Each principal means of access to an exterior storage area"

- Audible/visual ammonia alarms were not present at all the entrances to AMR 1 and AMR 2. A lack of audible/visual ammonia alarms at locations exterior to the AMR is inconsistent with the following RAGAGEP:

    - Section 6.13.1(2) of ANSI/IIAR-2 (2021) states, "Audible and visual alarms shall be provided inside the room to warn that access to the room is restricted to authorized personnel and emergency responders when the alarm has activated. Additional audible and visual alarms shall be located outside of each entrance to the machinery room."

- Ammonia audible/visual alarms were not labeled in a way to clearly communicate intent of alarm. For example, the signage adjacent to the alarm at the entrance to AMR 1 and the alarm for AMR 2 both stated, "Notice Refrigeration Alarm" but do not indicate the intent is to alert employees of an ammonia release. The audible/visual alarm inside AMR 1 was also not labeled regarding its function. A lack of sufficient alarm labeling for ammonia audible/visual alarms is inconsistent with the following RAGAGEP:

    - Section 7.2.9.1(2) of ANSI/IIAR-9 (2020) states, "Machinery Room Signage. Signage shall be provided in accordance with this section … 2) Alarm Signage. The meaning of each alarm shall be clearly marked by signage near the visual and audible alarms."

    - Section 7.3.12.6 of ANSI/IIAR-9 (2020) and Section 17.6 of ANSI/IIAR-2 (2021) state, "Ammonia leak detection alarms shall be identified by signage adjacent to visual and audible alarm devices."

    - Section 8.11.2.1 of ANSI/ASHRAE-15 (2016) states, "… The meaning of each alarm shall be clearly marked by signage near the annunciators."

- Pressure relief valve (PRV) piping on the roof discharges downward toward roof level rather than upward. Discharge from PRV piping in a downward direction inconsistent with the following RAGAGEP:

    - Section 15.5.1.5 of ANSI/IIAR-2 (2021) states, "The termination of the discharge shall be directed upwards and arranged to avoid spraying ammonia on persons in the vicinity."

- Ammonia piping used to drain oil from oil pots is not capped to prevent inadvertent releases. A lack of caps on the end of piping designed for oil draining is inconsistent with the following RAGAGEP:

    - Section 5.9.3(3) of ANSI/IIAR-2 (2021) states, "Oil removal shall be accomplished by one or more of the following: A valve and piping assembly

at the draining point where oil is removed from the system. At a minimum, a shut-off valve in series with a self-closing shut-off valve is required. All piping to atmosphere for oil draining shall be designed to be capped when not in use."

- The processing area was not separated from AMR 1 by tight fitting construction but is instead separated by a curtain and screen. A lack of tight-fitting construction between the processing areas and AMR 1 is inconsistent with the following RAGAGEP:

    - Section 6.2.1 of ANSI/IIAR-2 (2021) states, "The machinery room shall be separated from the remainder of the building by tight-fitting construction having a one-hour fire-resistance rating. Doors shall comply with Section 6.10."

    - Section 7.3.2.1 of ANSI/IIAR-9 (2020) states, "The machinery room shall be separated from the remainder of the building by tight-fitting construction."

    - Section 7.3.2.5 of ANSI/IIAR-9 (2020) states "Air shall not flow to or from any portion of a premises that is routinely accessible to or occupied by people on a part-time or full-time basis through a machinery room unless the air is ducted and sealed to prevent ammonia leakage from entering the airstream. Access doors and panels in ductwork and air-handling units located in a machinery room shall be gasketed and tight fitting."

- Areas of localized corrosion were observed on ammonia piping, valves, and ammonia refrigeration equipment in the AMRs and throughout the rest of the facility. Specifically, inspectors noted areas of localized corrosion in the following areas:

    1. Ammonia piping and associated equipment inside of AMR 1;

    2. Ammonia piping and associated equipment outside of and on the roof associated with AMR 1;

    3. Ammonia piping inside of Tank Farm "F";

    4. Ammonia piping and associated equipment inside of the processing room adjacent to AMR 1;

    5. Ammonia piping and associated equipment inside of AMR 2;

    6. Ammonia piping and associated equipment outside of and on the roof associated with AMR 2;

7. Ammonia piping and associated equipment inside of room with recirculator adjacent to AMR 2; and

8. Ammonia piping and associated equipment on roof associated with AMR 2.

The presence of corrosion on ammonia piping and equipment associated with ammonia refrigeration systems is inconsistent with the following RAGAGEP:

- Section 53.3.1.1 of NFPA 1 (2018) states, "Refrigeration systems shall be operated and maintained in a safe and operable condition, free from accumulations of oil, dirt, waste, excessive corrosion, other debris, or leaks, and in accordance with ASHRAE 15 and the mechanical code. Ammonia refrigerator systems shall be maintained in accordance with ANSI/IIAR-7, *Developing Operating Procedures for Closed-Circuit Ammonia Mechanical Refrigerating Systems*."

- Section 8.10.4 of ANSI/ASHRAE-15 (2013) states, "Refrigerant piping shall be properly isolated and supported to prevent damaging vibration, stress, or corrosion."

- Section 5.1 of ANSI/IIAR-9 (2020) states, "All equipment and system components shall be inspected, tested, and maintained in accordance with ANSI/IIAR 6 (2019)."

- During the facility walk-through, the inspection team observed multiple places where ammonia piping was not clearly and/or consistently labeled with contents, direction of flow, or phase of components. The lack of proper labeling was a common observation throughout the facility. A lack of consistent and/or clear pipe labeling practices throughout the facility on ammonia piping is inconsistent with the following RAGAGEP:

  - Section 5.14.6 of ANSI/IIAR-2 (2021) states, "*Pipe Marking. Ammonia piping mains, headers, and branches shall be identified with the following information: I. "AMMONIA"; 2. Physical state of the ammonia; 3. Relative pressure level of ammonia, being low or high as applicable; 4. Pipe service, which shall be permitted to be abbreviated; and 5. Direction of flow. The marking system shall either be one established by a recognized model code or standard or one described and documented by the facility owner or the owner's agent."

  - Section 7.2.9.4 of ANSI/IIAR-9 (2020) states, "Ammonia piping mains, headers, and branches shall be identified with the following information 1) "AMMONIA" 2) Physical state of the ammonia 3) Relative pressure level of ammonia, being low or high as applicable 4) Pipe service, which shall be permitted to be abbreviated 5) Direction of flow"

- Section 4.1.1-8 of IIAR Bulletin 114 (2014) states, “The piping marker will be considered to have (5) sections: a. marker body b. physical state section c. pressure level section. D. abbreviation section e. directional arrow”

- Section 5.0 of IIAR Bulletin 114 (2014) states, “Piping markers shall be located as follows: a. before and after a change in piping direction; when piping terminates at equipment and is within 24” of a marker or when piping changes direction more than once and is within 24” of a marker, it is not necessary to place an additional marker between the directional changing elbows or the termination point at equipment. b. before and after piping penetrations of walls, ceilings and floors, c. on extended horizontal or vertical runs of pipe, with a maximum spacing of 40 feet between markers, in order to provide positive identification, and d. at least once on the piping in every area through which the refrigeration piping passes.”

- ANSI/American Society of Mechanical Engineers (ASME) A13.1 (2015) specifies the most common pipe conventions in the United States for identifying pipe content, as well as the size, color, and placement of the identification device.

- During the facility walk-through, the inspection team observed multiple places where ammonia piping passed through the wall of the AMR and the opening was not adequately sealed. A lack of sealed piping penetrations through walls entering/exiting the AMR is inconsistent with the following RAGAGEP:

  - Section 7.3.2.5 of ANSI/IIAR-9 (2020) states “Air shall not flow to or from any portion of a premises that is routinely accessible to or occupied by people on a part-time or full-time basis through a machinery room unless the air is ducted and sealed to prevent ammonia leakage from entering the airstream. Access doors and panels in ductwork and air-handling units located in a machinery room shall be gasketed and tight fitting.”

  - Section 6.6.2 of ANSI/IIAR-2 (2021) and Section 7.3.6.2 of ANSI/IIAR-9 (2020) and state, “Pipes penetrating the machinery room envelope shall be sealed to walls, ceilings, or flows through which they pass to prevent leakage of ammonia vapor to adjoining spaces and to maintain the fire rating of the machinery room envelope.”

- Ice build-up was observed on ammonia piping, valves and on pressure vessels in multiple areas throughout the facility. The presence of unmitigated ice build-up on both insulated and uninsulated portions of ammonia piping and/or refrigeration equipment is inconsistent with the following RAGAGEP:

  - Section 5.6.8 of ANSI/IIAR-6 (2019) states, “Equipment and piping shall be kept free from excessive ice buildup. (1) Ice buildup shall not interfere with

the operation of emergency shut-off valves. (2) Ice accumulation shall not be permitted to deflect or bend pipes, displace components, or negatively impact the system's structural integrity."

- Section 7.2.6.1 of ANSI/IIAR-9 (2020) states, "Piping and equipment surfaces not intended for heat exchange shall be insulated, treated, or otherwise protected to mitigate condensation and excessive frost buildup where the surface temperature is below the dew point of the surrounding air during normal operation and in an area where condensation and frost could develop and become a hazard to occupants or cause damage to the structure, electrical equipment, or refrigeration system."

- Inspectors observed multiple instances throughout the facility where insulation and/or vapor barrier on ammonia piping and equipment was damaged. The presence of damaged insulation and/or vapor barriers on ammonia piping and equipment is inconsistent with the following RAGAGEP:

  - Section 5.10.1 of ANSI/IIAR-6 (2021) states, "Piping and equipment surfaces not intended for heat exchange shall be insulated, treated, or otherwise protected to mitigate effects of condensation and excessive frost buildup to a level that interferes with valve operation or creates damage to piping, equipment or supports."

  - Section A.11.1.1.2 of ANSI/IIAR-6 (2019) states, "If damage were to occur to the pipe insulation, vapor barrier, or both, the owner should proceed with repairing and/or replacing the damaged pipe insulation and/or vapor barrier in a timely manner if the damage poses an immediate unsafe condition or could develop into an unsafe condition, such as excessive weight loading, to the piping."

  - Appendix G Section 300.3 (1) of ASME B31.3 (2006) states, "Engineered safeguards that may be evaluated and selectively applied to provide added safeguarding include *(a)* means to protect piping against possible failures, such as *(1)* thermal insulation, shields, or process controls to protect from excessively high or low temperature and thermal shock."

- Inspectors observed sections of piping that were inadequately supported or secured or supported by other ammonia piping. A lack of appropriate piping supports for ammonia piping is inconsistent with the following RAGAGEP:

  - Section 7.2.7.1 of ANSI/IIAR-9 (2020) states, "Piping, tubing, and equipment shall be supported to prevent excessive vibration and movement."

  - Section 5.11.5 of ANSI/IIAR-2 (2021) states, "Supports and foundations shall be designed to prevent vibration or movement that causes damage, an

unsafe condition, or loss of function to the equipment, connected refrigeration system components, or the building structure."

- Section 321.1.1 of ASME B31.3 (2014) states, "The layout and design of piping and its supporting elements shall be directed toward preventing the following:

    1. piping stresses in excess of those permitted in this Code
    2. leakage at joints
    3. excessive thrusts and moments on connected equipment (such as pumps and turbines)
    4. excessive stresses in the supporting (or restraining) elements
    5. resonance with imposed or fluid-induced vibrations
    6. excessive interference with thermal expansion and contraction in piping which is otherwise adequately flexible
    7. unintentional disengagement of piping from its supports
    8. excessive piping sag in piping requiring drainage slope
    9. excessive distortion or sag of piping (e.g., thermoplastics) subject to creep under conditions of repeated thermal cycling
    10. excessive heat flow, exposing supporting elements to temperature extremes outside their design limits"

- Section 321.1.2 of ASME B31.3 (2014) states, "In general, the location and design of pipe supporting elements may be based on simple calculations and engineering judgment. However, when a more refined analysis is required and a piping analysis, which may include support stiffness, is made, the stresses, moments, and reactions determined thereby shall be used in the design of supporting elements."

- Section 321.1.4 of ASME B31.3 (2014) states,

    1. A supporting element used as an anchor shall be designed to maintain an essentially fixed position.
    2. To protect terminal equipment or other (weaker) portions of the system, restraints (such as anchors and guides) shall be provided

where necessary to control movement or to direct expansion into those portions of the system that are designed to absorb them. The design, arrangement, and location of restraints shall ensure that expansion joint movements occur in the directions for which the joint is designed. In addition to the other thermal forces and moments, the effects of friction in other supports of the system shall be considered in the design of such anchors and guides.

3. Piping layout, anchors, restraints, guides, and supports for all types of expansion joints shall be designed in accordance with para. X301.2 of Appendix X.

- Exposed electrical wiring and broken electrical equipment were observed in AMR 1 and outside of AMR 2. In the warehouse area, electrical equipment was broken resulting in exposed wiring. The presence of this exposed wiring and broken electrical equipment inside of the AMR and in the warehouse is inconsistent with the following RAGAGEP:

  - NFPA 70-2014, Section 110.12(B) states, "There shall be no damaged parts that adversely affect safe operation or mechanical strength of the equipment such as parts that are broken, bent, cut, or deteriorated by corrosion, chemical action, or overheating."

  - Section 1-8.1.2 of NFPA 70E (2000) states, "Working space required by this standard shall not be used for storage. When normally enclosed live parts are exposed for inspection or servicing, the working space, if in a passageway or general open space, shall be suitably guarded."

    Section 110.27(A) of NFPA 70 (2011) states, "Except as elsewhere required or permitted by this *Code,* live parts of electrical equipment operating at 50 volts or more shall be guarded against accidental contact by approved enclosures or by any of the following means: (1) By location in a room, vault, or similar enclosure that is accessible only to qualified persons. (2) By suitable permanent, substantial partitions or screens arranged so that only qualified persons have access to the space within reach of the live parts. Any openings in such partitions or screens shall be sized and located so that persons are not likely to come into accidental contact with the live parts or to bring conducting objects into contact with them. (3) By location on a suitable balcony, gallery, or platform elevated and arranged so as to exclude unqualified persons. (4) By elevation of 2.5 m (8 ft) or more above the floor or other working surface."

- During the facility walk-through, the inspection team observed used oil drums being stored inside AMRs 1 and 2. Used oil is a combustible substance and storage inside the AMR is inconsistent with the following RAGAGEP:

- Section 7.3.4 of ANSI/IIAR-9 (2020) states, “Combustible materials shall not be stored in machinery rooms outside of approved fire-rated storage containers.”
- Section 6.4 of ANSI/IIAR-2 (2021) states, “Combustible materials or flammable liquids shall not be stored in machinery rooms outside of approved fire-rated storage containers.”

- Inspectors observed used oil stored in AMR 1 and other chemicals stored outside in 55-gallon drums are not in secondary containment. A lack of secondary containment structures for chemical storage areas is inconsistent with the following RAGAGEP:
  - Section 6.2.1.9.3.1 (1) of NFPA 400 (2016) states, “Buildings, or portions thereof, used for any of the following shall be provided with secondary containment: Storage of liquids where the capacity of an individual vessel exceeds 55 gal (202.8 L) or the aggregate capacity of multiple vessels exceeds 1000 gal (3785 L)”.
  - 40 C.F.R. § 112.7(c) requires facilities subject to Spill Prevention Control and Countermeasures (SPCC) requirements to provide appropriate containment and/or diversionary structures or equipment to prevent a discharge as described in § 112.1(b).

- The King Valves associated with the HPR for AMR 1 was located on a platform above ground-level which requires a ladder without handrails to access. The King Valve was also not easily identifiable from ground-level. This King Valve access configuration is inconsistent with the following RAGAGEP:
  - Section 7.3.3.3(2) of ANSI/IIAR-9 (2020) states, “Manually operated isolation valves identified as being part of the system emergency shutdown procedure shall be directly operable from the floor or chain operated from a permanent work surface.”
  - Section 7.2.9.3 of ANSI/IIAR-9 (2020) states, “Valves required for emergency shutdown of the system shall be clearly and uniquely identified at the valve itself and in the system schematic drawings.”

- Inspectors observed that only one egress route was present off the roof of AMR 1. The absence of secondary means of egress off the roof is inconsistent with the following RAGAGEP:
  - Section 6.2.1.4.3 of NFPA 400 (2019) states, “Not less than two means of egress shall be provided from each building, or portions thereof, required to comply with Section 6.2, unless rooms for spaces do not exceed 200 square

feet, have an occupant load not exceeding three persons, and have a travel distance to the room door not exceeding 25 feet."

- Section 40.2.4.1.1 of NFPA 101 (2012) states, "Not less than two means of egress shall be provided from every story or section, and not less than one exit shall be reached without traversing another story."

- Inspectors observed that outside of AMR 1, one electrical transformer had a "Non-PCB" label but a second transformer was not labeled to indicate if PCBs were present. The absence of the PCB label on one of the electrical transformers is inconsistent with the following RAGAGEP:

  - 40 C.F.R. § 761.40(a)(2) states, "PCB Transformers at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal from use if not already marked. [Marking of PCB-Contaminated Electrical Equipment is not required]."

  - 40 C.F.R. § 761.40(a)(4) states, "Equipment containing a PCB Transformer or a PCB Large High Voltage Capacitor at the time of manufacture, at the time of distribution in commerce if not already marked, and at the time of removal of the equipment from use if not already marked."

- Access to the platform above the AMR 1 HPR is missing a guardrail at the top of the ladder. Not providing fall protection from a height greater than six (6) feet is inconsistent with the following RAGAGEP:

  - 29 C.F.R. § 1926.501(b)(1) states, "Unprotected sides and edges. Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems."

- Inspectors observed damaged grating on the roof of both AMR 1 and AMR 2 creating a compromised working surface. The grating of the working surface was unstable due to broken or missing supports beneath the surface. The unsafe working surface is inconsistent with the following RAGAGEP:

  - 29 C.F.R. § 1910.22(d) states, "The employer must ensure:

    1. Walking-working surfaces are inspected, regularly and as necessary, and maintained in a safe condition;

2. Hazardous conditions on walking-working surfaces are corrected or repaired before an employee uses the walking-working surface again. If the correction or repair cannot be made immediately, the hazard must be guarded to prevent employees from using the walking-working surface until the hazard is corrected or repaired; and

3. When any correction or repair involves the structural integrity of the walking-working surface, a qualified person performs or supervises the correction or repair."

- The eyewash station and safety shower inside AMR 2 did not provide adequate flow and the eyewash station on the roof of AMR 2 was broken. An eyewash station was not provided outside AMR 2. A lack of adequate emergency safety shower/eyewash stations inside of and exterior to the AMR is not consistent with the following RAGAGEP:

    - Section 7.3.7.1 of ANSI/IIAR-2 (2020) states, "Each machinery room shall have access to a minimum of two eyewash/safety shower units, one located inside the machinery room and one located outside of the machinery room."

    - Section 7.3.7.3 of ANSI/IIAR-2 (2020) states "Emergency eyewash/safety shower unit installations shall comply with ANSI/ISEA Z358.1."

- A manway into the ammonia condenser on the roof of AMR 2 is not affixed with labeling to indicate the presence of a confined space. A lack of confined space labeling on the manways is inconsistent with the following RAGAGEP:

    - 29 C.F.R. 1910.146(c)(1) states, "The employer shall evaluate the workplace to determine if any spaces are permit-required confined spaces."

    - 29 C.F.R. 1910.146(c)(2) states, "If the workplace contains permit spaces, the employer shall inform exposed employees, by posting danger signs or by any other equally effective means, of the existence and location of and the danger posed by the permit spaces. Note: A sign reading "DANGER - PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" or using other similar language would satisfy the requirement for a sign."

- A closed and locked vehicle exit gate near the front of the facility appears to be the primary means of egress from the property. Personnel gates equipped with panic hardware are not located adjacent to the closed and locked vehicle exit gate. Personnel gates are available at the employee parking lot but may not be easily accessible if an ammonia release occurs upwind of the employee parking lot. Closing and locking the vehicle entry gate without providing a personnel gate is

an impediment to egress from the facility during an emergency and is not consistent with the following RAGAGEP:

- Section 7.1.9 of NFPA 101 (2021) states, "Any device or alarm installed to impact the improper use of a means of egress, and any device or system installed to monitor or record use of a means of egress, shall be designed and installed so that it cannot, even in case of failure, impede or prevent emergency use of such means of egress."

2. 40 C.F.R. § 68.190(b)(1) requires the owner or operator of a stationary source to revise and update the RMP submitted under § 68.150 as follows: (1) At least once every five years from the date of its initial submission or most recent update required by 40 C.F.R. § 68.190(b)(2) through 40 C.F.R. § 68.190 (b)(7), whichever is later. For purposes of determining the date of initial submissions, RMPs submitted before June 21, 1999, are considered to have been submitted on that date.

    - The facility provided their last updated RMP submittal to EPA in July 2014. The facility should have provided an updated RMP submittal to EPA in July 2019. As of the date of inspection, the inspection team was unaware of a more recent RMP submission made to EPA on behalf of the facility than the submission dated to July 2014.

3. 40 C.F.R. § 68.195(b) requires that the owner or operator of a stationary source to correct the RMP as follows: (b) Emergency contact information—Beginning June 21, 2004, within one month of any change in the emergency contact information required under § 68.160(b)(6), the owner or operator shall submit a correction of that information.

    - The facility's emergency contact left the facility more than three (3) years ago and the RMP submittal has not been corrected.

Inspection Report,

Prepared by:

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Callie Sotolongo, Inspector-In-Training
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JUSTIN STARK
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Justin Stark, Inspector
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Approved by:

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