

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

SFC Global Supply Chain, Inc.

Florence, Kentucky

August 24, 2022

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 an ammonia refrigeration process at the SFC Global Supply Chain, Inc. (SFC) facility located in Florence, Boone County, Kentucky. This facility was selected for inspection because it hadn't been inspected within the last five years under the RMP. The inspection, which was conducted on August 24, 2022, consisted of a discussion of and request for program documentation, as well as a site review of various aspects of facility operations. Personnel from the facility participated throughout the inspection. Documents were provided for review. This report will provide a background of the facility and a listing of observations.

2.0 Background

The SFC facility is located in Florence, Kentucky. 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 ammonia 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

Inspector: Mark Briggs, Eastern Research Group (ERG)

Inspector: Amy Federoff, ERG

Date of Facility Visit: August 24, 2022

Facility Identification

Name: SFC Global Supply Chain, Inc.
Street Address: 7605 Empire Drive
City: Florence County: Boone State: Kentucky Zip: 41042
EPA Facility ID No: 1000 0012 3109
Dun & Bradstreet (D&B) No: 555589121
Latitude: 38.973889
Longitude: -84.634722

Name, address and phone of corporate parent company:
Owner/Operator: Schwan's Global Supply Chain, Inc.
Mailing Address: 115 West College Drive
City: Marshall State: Minnesota Zip: 56258
Phone: (507) 537-8359

Name, title, and email of person responsible for 40 C.F.R. Part 68 implementation:
Name: John Dimos
Title: Senior Director of Manufacturing
Email: john.dimos@schwans.com

Name and title of emergency contact:
Name: Robert Moore
Title: Sr. EHS Manager
Day phone: (859) 746-5457
24-hour Phone: (931) 444-9632
Email: robert.moore@schwans.com

Name and titles of stationary source personnel involved in site inspection (*accompanied site tours, provided documents and explanations*):
Name: Angie Snapp
Title: Sr. Operations Manager
Phone: (859) 746-5421
Email: angie.snapp@schwans.com

Name: Jared Thomas
Title: Sr. Safety Specialist
Phone: (859) 746-5448
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Name: Josh Spencer
Title: Maintenance Manager
Phone: (859) 647-8882
Email: josh.spencer@schwans.com

Name: Brian Tiemeier
Title: Sr. PSM Specialist
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Name: Pat Matyas
Title: Sr. Technical Manager
Phone: (513) 464-1634
Email: Patrick.matyar@schwans.com

Name: Robert Moore
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Name: Doug Siegert
Title: Director, Process Safety
Phone: (563) 581-3755
Email: doug.siegar@schwans.com

Name: Paul Stachewicz
Title: Director, EHS
Phone: (651) 587-1887
Email: paul.stachewicz@schwans.com

Note: This is not a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: June 22, 1999
Date of most recent submission: February 11, 2021
Process as reported in RMP: Ammonia Refrigeration
Process: Ammonia Refrigeration
Process ID: 1000114708
Program Level as reported in RMP: 3
NAICS code: 31141 (Frozen Food Manufacturing)

3.0 Observations

The inspection of the SFC 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. EPA inspectors requested paperwork associated with the facility’s Risk Management Plan (RMPlan). The documents were reviewed by EPA inspectors on-site and later off-site. The discussion was followed by a tour of the facility’s ammonia refrigeration system. An inspection out-brief was conducted where EPA

inspectors described their observations. Observations from the RMP inspection at the SFC 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).
 - At the time of the inspection, emergency shutoff valves (King Valve) for the new and old high-pressure receivers (HPRs) could not be operated from ground level. A fixed ladder was attached to the old HPR. However, it would require emergency response personnel to walk on the top of the tank to reach the King Valve. Lack of accessibility is inconsistent with the following RAGAGEP:
 - Section 4.1.3 of IIAR 2 (1984) states “All valves inaccessible from floor level shall be operated only from safety approved portable platforms, fixed platforms, ladders, or be chain operated. Isolating valve(s) which stop flow of liquid and discharge gas to the low side of plant shall be operable from the floor, or a fixed platform.”
 - Section 6.3.3.1 of IIAR 2 (2014) states “Manually operated valves that are inaccessible from floor level shall be operable from portable platforms, fixed platforms, ladders, or shall be chain operated.”
 - Section 6.3.3.2 of IIAR 2 (2014) 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.”
 - At the time of the inspection, the emergency eyewash station and safety shower on the exterior of the building could not be easily accessed by personnel leaving the ammonia machine room (AMR). The shower was not visible from the exit stairway in the AMR, is adjacent to the low temperature recirculator and ammonia pump, and requires personnel to move around the stairway leading to the roof. Lack of accessibility to the eyewash station and safety shower was inconsistent with the following RAGAGEP:
 - Section 7.4.2 of ANSI/ISEA Z358.1 (2009) states, “It is the installer's responsibility to ensure that combination units shall: Be in accessible locations that require no more than 10 seconds to reach. The combination unit shall be located on the same level as the hazard and the path of travel shall be free of obstructions that may inhibit its immediate use.”
 - Section 6.7.1 of ANSI/IIAR 2 (2014) 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, each meeting the requirements in Section 6.7.3.”

- Section 6.7.3 of ANSI/IIAR 2 (2014) states, “Installation Standard. Emergency eyewash/safety shower unit installations shall comply with ANSI/ISEA Z358.1.”
- Section 7.3.7.2 of ANSI/IIAR 9 (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, each meeting the requirements in Section 7.3.7.3.”
- Section 7.3.7.2 of ANSI/IIAR 9 (2020) states, “Emergency eyewash/safety shower unit installations shall comply with ANSI/ISEA Z358.1.”
- At the time of the inspection, surface corrosion was present on ammonia piping in various locations in the AMR. Actions concerning ammonia piping with surface corrosion is discussed the following RAGAGEP:
 - Section 10.1.1 of ANSI/IIAR 6 (2019) states, “where pitting, surface damage, general corrosion, or a combination thereof is visually observed on a metal surface of the pressure vessel, the deficient areas shall be further evaluated per Section 10.1.1.”
 - 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.”
- At the time of inspection, open electrical conduit and exposed wiring were present in two locations in the AMR. An extension cord had been cut and fashioned into permanent wiring in the AMR. Damaged or exposed wiring was inconsistent with the following RAGAGEP:
 - Section 110.12(B) of NFPA 70 (2020) 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 400.12.1 of NFPA 70 (2020) states, “Unless specifically permitted in 400.10, flexible cords, flexible cables, cord sets, and power supply cords shall not be used for the following:
 1. As a substitute for the fixed wiring of a structure
 2. Where run through holes in walls, structural ceilings, suspended ceilings, dropped ceilings, or floors
 3. Where run through doorways, windows, or similar openings
 4. Where attached to building surfaces”

- During the facility walk-through, the inspection team observed that anhydrous ammonia visual alarms outside the machinery room were not properly labeled or indicated otherwise as ammonia leak detection alarms. The absence of proper alarm signage is inconsistent with the following RAGAGEP:
 - Section 17.6 of ANSI/IIAR 2 (2014) states, “ammonia leak detection alarms shall be identified by signage adjacent to visual and audible alarm devices.”
 - Section 7.3.12.6 of ANSI/IIAR 9 (2020) states, “Ammonia leak detection alarms shall be identified by signage adjacent to visual and audible alarm devices.”
- At the time of inspection, ammonia piping was not properly supported in numerous locations. On the roof, insulation protection shields have been removed, allowing vapor barrier piping to rest directly on supports below causing damage. In a second location on the roof, piping is not resting on the support, allowing for possible vibration. Ammonia piping is sagging due to lack of support in one location. Ammonia piping vapor barrier and insulation have been cut to allow a clevis hanger to be installed adjacent to the low temperature recirculatory and above the AMR entry door. Lack of piping supports is inconsistent with the following RAGAGEP:
 - Section 5.3.1 of ANSI/IIAR 2 (1992) states, “The supports shall carry the weight of the pipe, including contents and insulation. If necessary, provide sway bracing to minimize vibration. The piping code provides for certain minimum dimensions for hangers to guard against mechanical damage, corrosion, etc.”
 - Section 13.4.2 of ANSI/IIAR 2 (2014) states, “Refrigerant piping shall be isolated and supported to prevent damage from vibration, stress, corrosion, and physical impact.”
 - Section 7.2.7.1 of ANSI/IIAR 6 (2019) states, “Piping, tubing, and equipment shall be supported to prevent excessive vibration and movement.”
 - 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.”
- At the time of inspection, insulation and vapor barrier was damaged in numerous locations on the roof. Lack of intact insulation is inconsistent with the following RAGAGEP:

- Section 5.10.1 of ANSI/IIAR 2 (2014) states, “piping and equipment surfaces not intended for heat exchange shall be insulated, treated, or otherwise protected to mitigate condensation and excessive frost buildup.”
- Section 7.2.6 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.”
- Ammonia piping was not properly labeled in numerous locations on the roof, in the AMR, on the new ice maker, and on evaporators. Lack of pipe labeling is inconsistent with the following RAGAGEP:
 - Section 5.14.5 of ANSI/IIAR 2 (2014) and 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 3.1 of ASME A13.1 (2015) states, “Positive identification of the contents of a piping system shall be by lettered legend, giving the name of the contents in full or abbreviated form ... Arrows shall be used to indicate direction of flow. Where flow can be in both directions, arrows in both directions shall be displayed. Contents shall be identified by a legend with sufficient additional details such as temperature, pressure, etc., as are necessary to identify the hazard.”
- At the time of the inspection, the supports for an ammonia condenser were corroded leaving holes in the structural steel. Lack of structural support is inconsistent with the following RAGAGEP:
 - Section 4.4.2 of IIAR 2 (1992) states, “The building structure shall be designed to provide adequate strength and rigidity to safely house and support all compressors, accumulators, pumps and related equipment.”
 - Section 5.11.4 of IIAR 2 (2014) states, “Supports and foundations shall meet or exceed the manufacturers' recommendations and shall be designed to carry expected loads.”

Inspection Report,

Prepared by:

**JORDAN
NOLES**

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Jordan Noles, Inspector
North Air Enforcement Section
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Approved by:

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Jason Dressler, Section Chief
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