

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Heritage Farms Dairy
Murfreesboro, Tennessee
December 16, 2021

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 Heritage Farms Dairy facility located in Murfreesboro, Rutherford County, Tennessee. This facility was selected for inspection because it had never been inspected under the RMP. The inspection, which was conducted on December 16, 2021, 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. Requested program documents were provided for further review off-site. This report will provide a background of the facility and a listing of observations.

2.0 Background

The Heritage Farms Dairy facility is located in Murfreesboro, Tennessee. The facility uses anhydrous ammonia as a refrigerant for fluid milk manufacturing and storage. The process is regulated as program level 3. According to facility records, the facility has a maximum of 25,300 pounds of ammonia (anhydrous) 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-In-Training: Bethany Terpin, EPA
Inspector: Jordan Noles, EPA
Date of Facility Visit: December 16, 2021

Facility Identification

Name: Heritage Farms Dairy
Street Address: 1000 New Salem Highway
City: Murfreesboro County: Rutherford State: Tennessee Zip: 37129
EPA Facility ID No: 1000 0005 4941
Dun & Bradstreet (D&B) No: 6999528
Latitude: 35.82581
Longitude: -086.441761

Name, address and phone of corporate parent company:
Owner/Operator: Kroger Company
Mailing Address: 1014 Vine Street
City: Cincinnati State: Ohio Zip: 45202
Phone: (513) 762-4000

Name, title, and email of person responsible for 40 C.F.R. Part 68 implementation:
Name: Jerome Embry
Title: Plant Site Leader
Phone: (615) 895-2790
Email: jerome.embry@kroger.com

Name and title of emergency contact:
Name: Sarah Brewer
Title: Plant Engineer
Day phone: (615) 907-6807
24-hour Phone: (517) 404-1778
Email: sarah.brewer@kroger.com

Name and titles of stationary source personnel involved in site inspection (*accompanied site tours, provided documents and explanations*):
Name: Megan Bane
Title: Regulatory Compliance Manager
Phone: (509) 366-2025
Email: megan.bane@kroger.com

Name: Jerry Sartain
Title: Maintenance Engineer
Phone: (615) 907-6809
Email: jerry.sartain@kroger.com

Note: This is not a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: June 18, 1999
Date of most recent submissions: September 9, 2021
Process: Ammonia Refrigeration
Process ID: 1000119071
Program Level as reported in RMP: 3
NAICS code: 311511 (Fluid Milk Manufacturing)

3.0 Observations

The inspection of the Heritage Farms Dairy 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 included an opening conference where EPA inspectors reviewed documents associated with the facility’s Risk Management Plan. The discussion was followed by a tour of the facility’s ammonia refrigeration process areas. An inspection out-brief was conducted where EPA inspectors requested additional documents for review off-site and described their observations. Observations from the RMP inspection at the Heritage Farms Dairy 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, corrosion and degradation were observed on the surface of the float level vessel in the ammonia machine room (AMR).

Table 10.1 of ANSI/IIAR 6 states that vessels are to be visually inspected annually for indications of degradation of the protective coating (i.e., paint). Section 10.1.1.1 states, “*Where pitting, surface damage, general corrosion, or a combination thereof, is suspected to have materially reduced the vessel wall thickness, the remaining wall thickness shall be measured using appropriate techniques.*”

- At the time of the inspection, maintenance equipment and combustible materials (e.g., ladders, equipment carts, cardboard boxes) were stored in the AMR in such a way that partially obstructed access to an exit door and ammonia refrigeration equipment.

Section 6.3.1 of ANSI/IIAR 2 (2014) states, “*Equipment installed in machinery rooms shall be located in such a manner as to allow egress from any part of the room in the event of an emergency, as required by Section 5.17.7, and to provide clearances required for maintenance, operation, and inspection according to manufacturer’s instructions.*”

Section 6.4 of ANSI/IIAR 2 (2014) states, “*Combustible materials shall not be stored in machinery rooms outside of approved fire-rated storage containers.*

EXCEPTION: This provision shall not apply to spare parts, tools, and incidental materials necessary for the operation and maintenance of the refrigeration system.

Section 605.11 of the International Fire Code (IFC; 2018) states, “*Flammable and combustible materials shall not be stored in machinery rooms for refrigeration systems having a refrigerant circuit containing more than 220 pounds (100 kg) of Group A1 or 30 pounds (14 kg) of any other group refrigerant. Storage, use or handling of extra refrigerant or refrigerant oils shall be as required by Chapters 50, 53, 55 and 57.*

Exception: This provision shall not apply to spare parts, tools and incidental materials necessary for the safe and proper operation and maintenance of the system.”

- At the time of the inspection, the doors in the AMR were not tight fitting and many were not self-closing. None of the doors had panic hardware, and most did not open in the direction of egress for occupants leaving the machine room.

Section 6.10.2 of ANSI/IIAR 2-2014 states, “*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 swing in the direction of egress for occupants leaving the machinery room.”*

- At the time of the inspection, National Fire Protection Association (NFPA) diamonds were missing on all the doors leading into the AMR.

Section 6.15.1. of ANSI/IIAR 2-2014 states, “*A NFPA 704 placard shall be provided in accordance with Section 5.14.2 on or next to all doors through which a person can enter the machinery room.”*

- At the time of the inspection, each door leading into the AMR was not marked with a sign to restrict access to the room.

Section 6.15.3 of ANSI/IIAR 2-2014 states, “*Each machinery room entrance door shall be marked with a permanent sign to indicate that only authorized personnel are permitted to enter the room.”*

2. 40 C.F.R. § 68.93(a) requires the owner or operator to coordinate annually with local emergency planning and response organizations to address changes: At the stationary source; in the stationary source’s emergency response and/or emergency action plan; and/or in the community emergency response plan.

- At the time of the inspection, the facility did not coordinate annually with local emergency planning and response organizations prior to the year 2021.

3. 40 C.F.R. § 68.93(c) requires the owner or operator to document coordination with local authorities including: The names of individuals involved and their contact information; dates of coordination activities; and nature of coordination activities.
- At the time of the inspection, the facility did not have adequate documentation of coordination with local authorities.

Inspection Report,

Prepared by:

BETHANY TERPIN

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TERPIN

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Bethany Terpin, Inspector-In-Training
North Air Enforcement Section
U.S. EPA Region 4

Date

JORDAN NOLES

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Jordan Noles, Inspector
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Jason Dressler, Section Chief
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