

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Kroger Memphis Distribution Center

Memphis, Tennessee

October 25, 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 Kroger Memphis Distribution Center (Kroger) located in Memphis, Shelby County, Tennessee. This facility was selected for inspection because it has never been inspected under the RMP. The inspection, which was conducted on October 25, 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 Kroger facility is located in Memphis, Tennessee. This facility uses anhydrous ammonia for cold food storage. 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 storage rooms. The facility was built in 1994 and the ammonia refrigeration system was installed in 1996 and expanded in 2015. The facility is 500,000 sq. ft. with 250,000 sq. ft. dedicated to cold storage ranging from 55°F to -15°F. The process is regulated as program level 3. According to facility records, the facility has the capacity for a maximum of 40,000 pounds of anhydrous ammonia on site. 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

Lead Inspector: Jordan Noles, EPA
Inspector: Bethany Terpin, EPA
Date of Facility Visit: October 25, 2022

Facility Identification

Name: Kroger Memphis Distribution Center
Street Address: 5079 Bledsoe Street
City: Memphis County: Shelby State: Tennessee Zip: 38141
EPA Facility ID No: 1000 0009 3882
Dun & Bradstreet (D&B) No: 106294234
Latitude: 35.010000
Longitude: -089.868056

Name, address and phone of corporate parent company:

Owner/Operator: Kroger Dedicated Logistics
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: Matthew Brown
Title: Maintenance Manager
Email: matthew.brown@kroger.com

Name and title of emergency contact:

Name: Matthew Brown
Title: Maintenance Manager
Day phone: (901) 547-6452
24-hour Phone: (262) 501-9303
Email: matthew.brown@kroger.com

Name and titles of stationary source personnel involved in site inspection (*accompanied site tours, provided documents and explanations*):

Name: Clyde Robinson
Title: Senior Supply Manager
Phone: (405) 924-4017
Email: clyde.robinson@kroger.com

Name: Lorenza Stewart
Title: Assistant Supply Chain Manager
Phone: (901) 547-6451
Email: Lorenza.stewart@ralphs.com

Name: Aaron Bennett
Title: Environmental Manager
Phone: (901) 547-6453
Email: aaron.bennett@kroger.com

Name: Matt Brown
Title: Maintenance Supervisor
Phone: (901) 547-6452
Email: matthew.brown@kroger.com

Note: This is a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: June 21, 1999
Date of most recent submission: May 02, 2022
Process as reported in RMP: Ammonia Refrigeration
Process: Ammonia Refrigeration
Process ID: 1000107565
Program Level as reported in RMP: 3
NAICS code: 49312 (Refrigerated Warehousing and Storage)

3.0 Observations

The inspection of the Kroger 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 Kroger 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.
 - At the time of the inspection, cardboard boxes, unsecured drums stacked on top of each other, buckets, and other combustible materials were found in the machinery room. ANSI/IIAR 2-2014 section 6.4 states, “*Combustible materials or*

flammable liquids shall not be stored in machinery rooms outside of approved fire-rated storage containers.”

- At the time of the inspection, there was no signage associated with the audible and visual alarms in the engine room. ANSI/IIAR 2-2014 Section 17.6 states, *“Ammonia leak detection alarms shall be identified by signage adjacent to visual and audible alarm devices.”*
- At the time of the inspection, the ammonia detectors in the engine room were set to 75 parts per million (ppm). ANSI/IIAR 2-2021 Section 6.13.2.2 states, *“Detection of ammonia concentrations equal to or exceeding 25 ppm shall activate visual indicators, audible alarms, and provide a notice to a monitored location. The visual indicator and audible alarm shall be permitted to reset automatically if the ammonia concentration drops below 25 ppm.”*
- At the time of the inspection, some pipes on the roof had missing labels or labels that were faded and/or peeling off. ANSI/IIAR 2-2014 section 5.14.6 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; 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.”

2. 40 C.F.R. § 68.71(c) requires the owner or operator to ascertain that each employee involved in operating a process has received and understood the training required by 40 C.F.R. § 68.71. The owner or operator shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training.
 - Facility representatives told the inspection team that they perform on-the-job training (OJT) with new employees as initial training; however, facility representatives could not produce any documentation of the OJT.
3. 40 C.F.R. § 68.69(c) requires the operating procedures to be reviewed as often as necessary to assure that they reflect current operating practice, including changes that result from changes in process chemicals, technology, and equipment, and changes to stationary sources. The owner or operator shall certify annually that these operating procedures are current and accurate.

- When asked for by the inspection team, facility representatives could not produce documentation of certification of operating procedures for 2020 and 2021.
4. 40 C.F.R. § 68.93(a) requires coordination with the local emergency planning and response organizations to occur at least annually, and more frequently if necessary, 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.
- The facility had documentation that they had coordinated with the Memphis Fire Department in 2020 and 2021; however, there was no documentation of coordination with the fire department for 2018 or 2019.

Inspection Report,

Prepared by:

JORDAN NOLES Digitally signed by JORDAN
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Jordan Noles, Inspector
North Air Enforcement Section
U.S. EPA Region 4

Date

Approved by:

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Jason Dressler, Section Chief
North Air Enforcement Section
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Date