

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Ben E. Keith Foods Southeast Division

New Brockton, Alabama

May 2, 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 Ben E. Keith Foods Southeast Division (Ben E. Keith) facility located in New Brockton, Coffee County, Alabama. This facility was selected for inspection because it involves ammonia refrigeration and is a priority area for EPA Region 4. The inspection, which was conducted on May 2, 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. 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 Ben E. Keith facility is located in New Brockton, Alabama. The 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 and beverage storage. The process is regulated as program level 3. According to facility records, the facility has a maximum of 28,000 pounds of anhydrous 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: Mark Briggs, Eastern Research Group (ERG)

Inspector: Brendan Scher, ERG

Date of Facility Visit: May 2, 2024

Facility Identification

Name: Ben E. Keith Foods Southeast Division

Street Address: 1 Ben E. Keith Way

City: New Brockton County: Coffee State: Alabama Zip: 36351

EPA Facility ID No: 1000 0024 7422

Dun & Bradstreet (D&B) No: N/A

Latitude: 31.381056

Longitude: -85.948928

Name, address and phone of corporate parent company:

Owner/Operator: Ben E. Keith North America

Mailing Address: 601 E 7th Street City: Fort Worth State: Texas Zip: 76102

Phone: (863) 551-3700

Name, title, and email of person responsible for 40 C.F.R. Part 68 implementation:

Name: Mike Herzog

Title: Facility Manager

Phone: (713) 705-6037

Email: mjherzog@benekeith.com

Name and title of emergency contact:

Name: Mike Herzog

Title: Facility Manager

Day phone: (713) 705-6037

24-hour Phone: (713) 705-6037

Email: mjherzog@benekeith.com

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

Name: Mike Herzog

Title: Facilities Manager

Phone: (713) 705-6037

Email: mjherzog@benekeith.com

Name: AJ Jowers

Title: Safety Manager

Phone: (334) 282-9961

Email: najowers@benekeith.com

Name: Rebecca Lattis

Title: EHS

Phone: (214) 641-0729

Email: rilattis@benekeith.com

No3te: This is not a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: October 25, 2021

Date of most recent submissions: October 25, 2021

Process: Ammonia Refrigeration

Process ID: 1000120153

Program Level as reported in RMP: 3

NAICS code: 49312 (Refrigerated Warehousing and Storage)

3.0 Observations

The inspection of the Ben E. Keith 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 Ben E. Keith facility are discussed below:

1. 40 C.F.R. § 68.25(b)(1) requires the worst-case release quantity in the offsite consequence analysis to be the greatest amount held in a single vessel, taking into account administrative controls that limit the maximum quantity.
 - The facility personnel provided documentation during the inspection which stated that their worst-case scenario quantity of release was 19,438 pounds for a tank explosion during a helicopter crash. The inspection team requested further documentation of the justification for using this quantity but has yet to receive the documentation from the facility.
2. 40 C.F.R. § 68.65(d)(1)(ii) requires the owner or operator to include piping and instrument diagrams (P&IDs) in the process safety information.
 - The facility provided as-built P&IDs at the request of the inspection team. Review of P&ID Sheet Number R301 associated with the Oil Still OS-1 and nearby ammonia piping indicates isolation valve HV OS1-16 and spring-loaded ball valve QDV OS1-17 are present. However, during the facility walk-through the inspection team noted self-closing valve QDV OS1-17 is missing. The spring-loaded ball valve QDV OS1-17 is self-closing and considered part of the safeguards included in the Process Hazard Analysis (PHA) for oil draining and is listed in the oil draining procedure for the Oil Still OS-1.

3. 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). The following observations were made with respect to RAGAGEP:
- During the facility walk-through, the inspection team observed that the flammable cabinet within the maintenance shop was not grounded.
 - National Fire Protection Association (NFPA) 1, Fire Code, (2024), Section 63.3.7.6.1 states, *“Static producing equipment located in flammable gas areas shall be grounded.”*
 - NFPA 55, Compressed Gases and Cryogenic Fluids Code, (2023), Section 7.7.3.1 states, *“Static producing equipment located in flammable gas areas shall be grounded.”*
 - During the facility walk-through, the inspection team observed that oil drums being stored within the ammonia machinery room (AMR) lacked secondary containment in the case of a spill.
 - NFPA 400, Hazardous Materials Code, (2022), Section 6.1.3.2 states, *“Provisions shall be made for controlling and mitigating unauthorized releases.”*
 - NFPA 400, Hazardous Materials Code, (2022), Section 6.2.1.9.1 states, *“Buildings, or portions thereof, required to comply with Protection Level 1 through Protection Level 4 shall be provided with spill control and secondary containment in accordance with 6.2.1.9.2 and 6.2.1.9.3, except for outdoor storage on containment pallets complying with 6.2.7.3.3.”*
 - NFPA 30, Flammable and Combustible Liquids Code, (2024), Sections 9.13.1 and 12.13.1 state, *“Where the maximum allowable quantity (MAQ) is exceeded, spill control shall be required in accordance with 6.12.2.”*
 - During the facility walk-through, the inspection team observed that the diesel-fired emergency generator with fuel tanks stationed in the facility parking lot was not labeled with an NFPA diamond.
 - NFPA 30, Flammable and Combustible Liquids Code, (2024), Sections 21.7.2.1 states, *“A sign or marking that meets the requirements of NFPA 704 or another approved system shall be applied to storage tanks containing ignitable (flammable or combustible) liquids. The marking shall be located where it can be seen, such as on the side of the tank, the shoulder of an accessway or walkway to the tank or tanks, or on the piping outside of the diked area. If more than one tank is involved, the markings shall be so located that each tank can be identified.”*

- NFPA 704, Standard System for the Identification of the Hazards of Materials for Emergency Response (2022), Section 9.1 states, *“Symbol Arrangement. One of the systems delineated in Figure 9.1(a), Figure 9.1(b), or Figure 9.1(c) shall be used for the implementation of this standard.”*
- During the facility walk-through, the inspection team observed that anhydrous ammonia piping within the AU-10 penthouse was prone to swaying and vibration due to insufficient support.
 - American National Standards Institute/International Institute of Ammonia Refrigeration (ANSI/IIAR-2), Standard for Design of Safe Closed-Circuit Ammonia Refrigeration Systems, (2021), Section 5.11.5 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.”*
 - ANSI/IIAR-2, Standard for Design of Safe Closed-Circuit Ammonia Refrigeration Systems, (2021), Section 13.4.2 states, *“Refrigerant piping shall be isolated and supported to prevent damage from vibration, stress, corrosion, and physical impact.”*
 - ANSI/IIAR-9, Minimum Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems, (2020), Section 7.2.7.1 states, *“Piping, tubing, and equipment shall be supported to prevent excessive vibration and movement.”*
 - ANSI/IIAR-9, Minimum Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems, (2020), Section 7.3.2.4 states, *“Supports and foundations shall be adequate to prevent excessive vibration of the equipment.”*
- During the facility walk-through the inspection team noted neither entrance to the AMR included signage with emergency facility contact information in the event of an ammonia alarm or ammonia release.
 - ANSI/IIAR-9, Minimum Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems, (2020), Section 7.2.10.5 states, *“Signage shall include emergency facility contact title and phone number to call in the event of an alarm or ammonia release.”*
- During the facility walk-through, the inspection team observed the Oil Still OS-1 did not have an automatic closing valve for draining oil.
 - ANSI/IIAR-9, Minimum Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems (2020), Section 7.2.5.3 (2) states, *“Oil*

removal shall be accomplished by one or more of the following: A vessel equipped with a shut-off valve in series with a self-closing shut-off valve.”

- During the facility walk-through, the inspection team observed gasoline powered equipment being stored inside the AMR.
 - ANSI/IIAR-2, Standard for Design of Safe Closed-Circuit Ammonia Refrigeration Systems, (2021), Section 6.4 states, *“Combustible materials or flammable liquids shall not be stored in machinery rooms outside of approved fire rated storage containers.”*
 - ANSI/IIAR-9, Minimum Safety Requirements for Existing Closed-Circuit Ammonia Refrigeration Systems (2020), Section 7.3.4 states, *“Combustible materials shall not be stored in machinery rooms outside of approved fire-rated storage containers.”*
- 4. 40 C.F.R. § 68.67(c)(3) requires the PHA to address engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases.
 - The facility prepared an initial PHA using a What If/Checklist methodology in March 2021 prior to adding anhydrous ammonia to the refrigeration system. The PHA includes worksheets which ask “What If” type questions and then include associated consequences, hazards, and safeguards, as well as a risk-ranking system to evaluate the likelihood of failure and any recommendations. Attachment 2 of the PHA includes a Master Tracking Table that lists the 45 recommendations made during the initial PHA and asks if the recommendation is resolved. Attachment 3 includes individual PHA recommendation tracking sheets that include approval and implementation signoff sheets, an implementation schedule, and a description of the final recommendation implementation.
 - PHA Worksheet M – Oil Still OS-1 Item 12 on page 159 indicates that safeguards for oil draining is using the manual spring-loaded ball valve. Item 12 includes a recommendation to drain oil monthly to minimize having to hold open the spring-loaded ball valve for long periods of time. During the facility walk-through, the inspection team observed there is no spring-loaded ball valve associated with the Oil Still OS-1. Not having a spring-loaded ball valve on the oil drain line removes one of the important safeguards to prevent an ammonia release and possible personnel injury during oil draining.
- 5. 40 C.F.R. § 68.67(e) requires the owner or operator to establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; and communicate the actions to operating,

maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.

- Of the 45 recommendation tracking sheets included in the PHA, only 5 have been completed. Although some of the other PHA recommendations may have been completed, they are not being tracked.
6. 40 C.F.R. § 68.69(a) requires the owner or operator to develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information.
- During the facility walk-through, the inspection team observed that Oil Still OS-1 within the AMR did not possess a spring-loaded ball valve for oil draining. The facility provided their standard operating procedure for draining the vessel column oil. This procedure includes a step on Page 7 which states “*Verify the vessel column oil drain isolation valve (OS-1-17) is closed.*” This does not match the equipment present in the field during the inspection.

Inspection Report,

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Jordan Noles, Inspector
North Air Enforcement Section
U.S. EPA Region 4

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Jason Dressler, Section Chief
North Air Enforcement Section
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