

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Helm Fertilizer Terminal

Memphis, Tennessee

August 19, 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 chemical storage and distribution process at the Helm Fertilizer Terminal located in Memphis, Shelby County, Tennessee. This facility was selected for inspection because it has never been under the RMP. The inspection, which was conducted on August 19, 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. 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 Helm Fertilizer Terminal is located in Memphis, Tennessee. The facility receives anhydrous ammonia via barges and railcars, and the anhydrous ammonia is stored onsite in numerous storage vessels until it can be loaded into trucks for shipment. In addition, the facility utilizes an aqua ammonia converter to add water to the anhydrous ammonia to create 19.5% and 29.4% aqueous ammonia, which is stored at the facility until it is loaded for shipment at a common loadout location. The process is regulated as program level 3. According to facility records, the facility has a maximum of 19,000,000 pounds of anhydrous ammonia and 240,000 of ammonia (conc. 20% or greater) on site. The chemical storage and distribution process at the facility is subject to the RMP requirements of 40 C.F.R. Part 68. The background specifics are summarized as follows in Table 1.

TABLE 1: Inspection Information Summary

Inspection Team

Lead Inspector: Jordan Noles, EPA

Inspector-in-Training: Bethany Terpin, EPA

Date of Facility Visit: August 19, 2021

Facility Identification

Name: Helm Fertilizer Terminal
Street Address: 1421 Channel Avenue
City: Memphis County: Shelby State: Tennessee Zip: 38113
EPA Facility ID No: 1000 0016 2575
Dun & Bradstreet (D&B) No: 606146561
Latitude: 35.055900
Longitude: -090.055800

Name, address, and phone of corporate parent company:

Owner/Operator: Helm Fertilizer Corporation
Mailing Address: 1421 Channel Avenue
City: Memphis State: Tennessee Zip: 38113
Phone: (901) 948-3303

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

Name: James Hinton
Title: Director EHS&Q
Phone: (901) 942-2859
Email: j.hinton@helmmemphis.com

Name and title of emergency contact:

Name: James Hinton
Title: Director EHS&Q
Day phone: (901) 942-2859
24-hour Phone: (901) 652-0663
Email: j.hinton@helmmemphis.com

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

Name: James Hinton
Title: Director EHS&Q
Phone: (901) 942-2859
Email: j.hinton@helmmemphis.com

Name: Oliver Coleman
Title: V.P. of Operations
Phone: (907) 372-7962
Email: o.coleman@helmmemphis.com

Note: This is not a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: October 04, 1999

Date of most recent submissions: June 13, 2021

Process: Farm Supplies Wholesalers

Process ID: 1000116909

Program Level as reported in RMP: 3

NAICS code: 42459 (Other Farm Product Raw Material Merchant Wholesalers)

3.0 Observations

The inspection of the Helm Fertilizer Terminal 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 discussions with the facility representatives regarding a myriad of issues related to the operation of its ammonia storage and distribution process, the facility’s RMP, a review of paperwork associated with the facility’s most recent Risk Management Plan, and a tour of the facility. An inspection in-brief and out-brief were conducted. Observations from the RMP inspection at the Helm Fertilizer Terminal 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.
 - Some pipes connecting Tank # 10 and the ammonia loading dock, as well as some pipes inside the engine room, were not labeled in accordance with ASME A13.1 related to pipe contents and direction of flow.
 - At the time of the inspection, insulation was damaged on outside ammonia piping. ANSI/IIAR 2-2014, Section 5.10.1 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.”* IIAR Bulletin 109, Sections 4.7.5 states, *“insulated piping showing signs of vapor barrier failure should have the insulation removed and the pipe inspected.”*
 - At the time of the inspection, some ammonia equipment in the process area, including the ammonia offloading area was not protected from vehicular traffic. ANSI/IIAR 2-2014 Section 7.2.4 states, *“Equipment shall be protected where a risk of physical damage exists. Where equipment containing ammonia is located in an area with heavy vehicular traffic during normal operations and a risk of*

impact exists, vehicle barriers or alternative protection shall be provided in accordance with the Fire Code.”

Inspection Report,

Prepared by:

**JORDAN
NOLES**

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

Date

Approved by:

JASON DRESSLER

Digitally signed by JASON
DRESSLER
Date: 2021.10.15 12:27:34 -04'00'

Jason Dressler, Chief
North Air Enforcement Section
U.S. EPA Region 4

Date