

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Sanderson Farms, LLC

Flowood, Mississippi

September 13, 2023

1.0 Introduction

The U.S. Environmental Protection Agency's (EPA) 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 Sanderson Farms, LLC (Sanderson Farms) facility located in Flowood, Rankin County, Mississippi. This facility was selected for inspection because it had never been inspected under the RMP. The inspection, which was conducted on September 13, 2023, 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 Sanderson Farms facility is located in Flowood, Mississippi. The facility uses anhydrous ammonia as a refrigerant to store food products for distribution. 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 process is regulated as program level 3. According to facility records, the facility has a maximum of 36,861 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: Jordan Noles, EPA

Inspector: Justin Stark, EPA

Inspector: Laura James, Mississippi Department of Environmental Quality (MDEQ)

Inspector: Riley Moss, MDEQ
Date of Facility Visit: September 13, 2023

Facility Identification

Name: Sanderson Farms, LLC
Street Address: 4418 Magnum Drive
City: Flowood County: Rankin State: Mississippi Zip: 39208
EPA Facility ID No: 100000088638
Dun & Bradstreet (D&B) No: 96043708
Latitude: 32.320556
Longitude: -90.104167

Name, address and phone of corporate parent company:

Owner/Operator: Sanderson Farms, LLC
Mailing Address: 127 Flynt Road
City: Laurel State: Mississippi Zip: 39443
Phone: (601) 649-4030

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

Name: Mickey Kelly
Title: Operations Manager
Phone: (601) 939-9790
Email: mickey.kelly@waynesanderson.com

Name and title of emergency contact:

Name: Mickey Kelly
Title: Operations Manager
Day phone: (601) 939-9790
24-hour Phone: (601) 718-7973
Email: mickey.kelly@waynesanderson.com

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

Name: DeWayne Woodard
Title: Assistant Operations Manager
Phone: (601) 939-9790
Email: Dwayne.woodard@waynesanderson.com

Name: Aaron Henderson
Title: Health & Safety Manager
Phone: (601) 939-9790
Email: aaron.henderson@waynesanderson.com

Name: Darryl Harris
Title: Maintenance Manager
Phone: (601) 622-8464
Email: Darryl.harris@waynesanderson.com

Name: Shannon Franklin
Title: Environmental Manager
Phone: (601) 832-0095
Email: shannon.franklin@waynesanderson.com

Name: Anthony Smith
Title: Refrigeration
Phone: (601) 739-1138
Email: anthony@yahoo.com

Name: Chris Eavenson
Title: Regional Safety Manager
Phone: (601) 319-2804
Email: Christopher.eavenson@waynesanderson.com

Note: This is not a union facility.

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: June 21, 1999
Date of most recent submissions: March 21, 2023
Process: Ammonia Refrigeration
Process ID: 1000130427
Program Level as reported in RMP: 3
NAICS code: 311991 (Perishable Prepared Food Manufacturing)

3.0 Observations

The inspection of the Sanderson Farms 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. The discussion was followed by a tour of the facility’s ammonia refrigeration process areas. EPA inspectors then requested paperwork associated with the facility’s Risk Management Plan (RMPlan). The documents were reviewed by EPA inspectors on-site and provided for review off-site. An inspection out-brief was conducted where EPA inspectors described their observations. Observations from the RMP inspection at the Sanderson Farm 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).
 - During the facility walkthrough, the inspection team noted the emergency shutoff valve (King Valve) on top of the high-pressure receiver just outside of the engine room was not labeled.
 - American National Standards Institute/International Institute of Ammonia Refrigeration (ANSI/IIAR) 2 Section 5.14.4 states, *“Valves listed as emergency shut off valves in the system emergency shutdown procedure shall be clearly and uniquely identified at the valves themselves and in the system schematic drawings.”*
 - ANSI/IIAR 9 Section 7.2.9.3 states, *“Valves required for emergency shutdown of the system shall be clearly and uniquely identified at the valve itself and in the system schematic drawing.”*
 - During the facility walkthrough, the inspection team noted some insulation on ammonia pipes associated with the outdoor equipment was torn or gaping at the seams, exposing the pipes underneath to moisture.
 - ANSI/IIAR 2 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.”*
 - ANSI/IIAR 9 Section 7.2.6.1 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.”*
 - During the facility walkthrough, the inspection team noted corrosion, rust, and pitting on piping and valve groups associated with the outdoor ammonia equipment.
 - ANSI/IIAR 6 (2019) Section 11.1.1 states, *“Where pitting, surface damage, general corrosion, or a combination thereof, is visually observed on a metal surface of the piping, deficient areas shall be further evaluated per Sections 11.1.1.1 - 11.1.1.3.”*
 - ANSI/IIAR 6 (2019) Section 11.1.1.1 states, *“Where pitting, surface damage, general corrosion, or a combination thereof, has materially reduced the remaining pipe wall thickness, the piping remaining wall thickness shall be measured using appropriate techniques.”*

- ANSI/IIAR 6 (2019) Section 11.1.1.2 states, “Where pitting, surface damage, general corrosion, or a combination thereof, has not materially reduced the remaining pipe wall thickness, the piping metal surface shall be cleaned and recoated to arrest further deterioration.”
 - ANSI/IIAR 6 (2019) Section 11.1.1.3 states, “Where pitting, surface damage, general corrosion, or a combination thereof, has materially reduced the remaining pipe wall thickness beyond the owner's established acceptance criteria, the piping shall be evaluated to determine suitability for continued operation.”
- During the facility walkthrough, the inspection team noted excessive ice buildup on some of the pipes and valve groups associated with the outdoor ammonia equipment. Excessive ice buildup may interfere with turning valves and can add weight, compromising the structural integrity of the pipes. There was also ice underneath some of the insulation. Moisture trapped under insulation may accelerate corrosion of pipes.
 - ANSI/IIAR 6 Section 5.6.8 states, *“Equipment and piping shall be kept free from excessive ice buildup.”*
 - 5.6.8.1 Ice buildup shall not interfere with the operation of emergency shutoff valves.
 - 5.6.8.2 Ice accumulation shall not be permitted to deflect or bend pipes, displace components, or negatively impact the system’s structural integrity.”
 - Table 11.1 (Piping Inspection, Testing, and Maintenance Tasks) in ANSI/IIAR 6 requires annual visual inspections for damage or moisture incursion in insulation (i.e. dampness, condensation, frost, ice buildup).
- 2. 40 C.F.R. § 68.87(c)(3) requires the contract owner or operator to document that each contract employee has received and understood the training required by 40 C.F.R. § 68.87. The contract owner or operator shall prepare a record which contains the identity of the contract employee, the date of training, and the means used to verify that the employee understood the training.
 - When asked for by the inspection team, facility representatives could not produce any documentation demonstrating the method of training contract employees.

Inspection Report,

Prepared by:

JORDAN NOLES

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NOLES

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

Approved by:

JASON DRESSLER

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Date: 2023.10.30 11:22:13 -04'00'

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