

United States Environmental Protection Agency / Region 4

Risk Management Program Inspection Report

Sanderson Farms, LLC

Laurel, Mississippi

September 14, 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 Laurel, Jones County, Mississippi. This facility was selected for inspection because it had never been inspected under the RMP. The inspection, which was conducted on September 14, 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 Laurel, Mississippi. The facility uses anhydrous ammonia as a refrigerant to store chicken products for distribution. The facility processes 130,000 chickens per day and around 650,000 per week. 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 chicken products storage. The process is regulated as program level 3. According to facility records, the facility has a maximum of 32,935 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 14, 2023

Facility Identification

Name: Sanderson Farms, LLC
Street Address: 2535 Sanderson Drive
City: Laurel County: Jones State: Mississippi Zip: 39441
EPA Facility ID No: 1000 0008 8503
Dun & Bradstreet (D&B) No: 96043708
Latitude: 31.666944
Longitude: -89.160833

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: Joseph Evans
Title: Complex Manager
Phone: (601) 428-5261
Email: joseph.evans@waynesanderson.com

Name and title of emergency contact:
Name: Joseph Evans
Title: Complex Manager
Day phone: (601) 428-5261
24-hour Phone: (601) 310-2114
Email: joseph.evans@waynesanderson.com

Name and titles of stationary source personnel involved in site inspection (*accompanied site tours, provided documents and explanations*):
Name: Rian McMorris
Title: Environmental Manager
Phone: (318) 218-4996
Email: rian.mcmorris@waynesanderson.com

Name: Stephanie Shoemaker
Title: Sr. Environmental Director
Phone: (601) 426-1572
Email: stephanie.shoemaker@waynesanderson.com

Name: Scott Rushing
Title: Safety & Health
Phone: (601) 426-1466
Email: scott.rushing@waynesanderson.com

Name: Chris Eavenson
Title: Regional Safety Manager
Phone: (601) 426-1361
Email: chris.eavenson@waynesanderson.com

Name: Scott Rowland
Title: Director of Engineering
Phone: (601) 651-6828
Email: scott.rowland@waynesanderson.com

Name: Richard Ward
Title: Safety & Health
Phone: (601) 498-6353
Email: richard.ward@waynesanderson.com

Name: Rusty Harrison
Title: Regional PSM Manager
Phone: (256) 894-3626
Email: rusty.harrison@waynesanderson.com

Name: Sam Glover
Title: Regional PSM Manager
Phone: (601) 651-5856
Email: sam.glover@waynesanderson.com

Name: Leonard Manning
Title: Maintenance Manager
Phone: (601) 274-0458
Email: leonard.manning@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: February 15, 2023
Process: Ammonia Refrigeration
Process ID: 1000129692
Program Level as reported in RMP: 3
NAICS code: 311615 (Poultry Processing)

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. 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 some insulation on ammonia pipes associated with the outdoor equipment was torn, exposing the pipes and vessels underneath to moisture, specifically vessel V-3. There was also torn insulation on pipes associated with compressors C-5, C-11, and C-13 in the engine room.
 - American National Standards Institute/International Institute of Ammonia Refrigeration (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 and equipment in the engine room.
 - Section 11.1.1 of ANSI/IIAR 6 (2019) 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.”*

- Section 11.1.1.1 of ANSI/IIAR 6 (2019) 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.”*
 - Section 11.1.1.2 of ANSI/IIAR 6 (2019) 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.”*
 - Section 11.1.1.3 of ANSI/IIAR 6 (2019) 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 two ammonia pumps with exposed motors. The guarding that was present on one of the motors was not affixed to any part of the system and could be easily knocked over or moved.
 - ANSI/IIAR 2 Section 5.16.1 states, *“Exposed moving parts shall be protected with screens or guards in accordance with Occupational Safety and Health Administration (OSHA) 29 C.F.R. 1910.212 and 29 C.F.R. 1910.219.”*
 - OSHA 29 C.F.R. 1910.212(a)(2) states, *“Guards shall be affixed to the machine where possible and secured elsewhere if for any reason attachment to the machine is not possible. The guard shall be such that it does not offer an accident hazard in itself.”*
 - During the facility walkthrough, the inspection team noted a door in the engine room that remained open and was not self-closing.
 - ANSI/IIAR 2 Section 6.10.2 states, *“Machinery room doors shall be self-closing and tight-fitting...”*
2. 40 C.F.R. § 68.73(d)(3) requires the frequency of inspections and tests of process equipment to be consistent with applicable manufacturers' recommendations and good engineering practices, and more frequently if determined to be necessary by prior operating experience.
- The facility calibrates the ammonia detectors every six months; however, the detectors were not calibrated in August 2022. There was a year in between calibrations.

Inspection Report,

Prepared by:

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