

CAA 112(r) INSPECTION REPORT

Name: Bleigh Farms	
Address: 9037 Highway 168 Palmyra, Missouri 63461	Date of Inspection: August 11, 2022
County: Marion County	Case No: 22MO0811
Phone: 573-221-2247	RMP No: 1000 0003 6409
High Risk: No	FRS No: 1100 0070 9252
CAA Title V: No	Program Level: Program 2
Mailing Address: PO Box 957, Hannibal, Missouri 63401	
Process: Agronomy business, including distribution of anhydrous ammonia	

SUMMARY OF OBSERVATIONS

A review of documents pertaining to the Bleigh Farms facility at 9037 Highway 168, Palmyra, Missouri (facility), and an inspection at that facility—both with focus on Chemical Accident Prevention Provisions (Title 40 *Code of Federal Regulations* [CFR] Part 68)—revealed the following deficiencies:

1. The facility failed to perform a compliance audit at least once every 3 years, as required by 40 CFR 68.58(a).
2. The facility failed to update off-site consequence analyses (OCA) at least once every 5 years, as required by 40 CFR 68.30.
3. The facility failed to document upper and lower temperature, pressure, flow, and composition as part of its safety documentation, as required by 40 CFR 68.48(a)(3).
4. The facility failed to update its hazard review at least once every 5 years, as required by 40 CFR 68.50(d).
5. The facility failed to document standard operating procedures (SOP) for emergency shutdown, temporary operations, and restart after emergency shutdown, as required by 40 CFR 68.52(b).
6. The facility failed to document consequences of deviation in its SOPs, as required by 40 CFR 68.52(b)(7).
7. The facility failed to conduct refresher training at least every 3 years, as required by 40 CFR 68.54(b).

- 8. The facility failed to implement procedures to maintain ongoing mechanical integrity of the process equipment following industry codes and standards, as required by 40 CFR 68.56(a).**
- 9. The facility failed to coordinate with the county local emergency planning committee (LEPC), as required by 40 CFR 68.93.** *This preliminary finding was identified based on post-inspection findings.*
- 10. The facility failed to maintain a management system to oversee implementation of risk management program elements, as required by 40 CFR 68.15.** *This preliminary finding was identified based on post-inspection findings.*

INTRODUCTION

I, Heather Wood, Tetra Tech, Inc. (Tetra Tech), as a representative of U.S. Environmental Protection Agency (EPA) Region 7, inspected the Bleigh Farms facility in Palmyra, Marion County, Missouri, on August 11, 2022. On August 4, 2022, I had contacted the facility receptionist and left a message for Mr. Robert Bleigh to notify him of an inspection planned for the week of August 8. I then spoke with him by telephone and confirmed the date and time.

The intent of the inspection was to determine if the facility complies with Section 112(r) of the Clean Air Act (CAA), as amended in 1990. EPA's regulations describing implementation of this law are included in 40 CFR 68 (CAA). All attachments cited in this inspection report (Attachments 1 through 10) are also in a folder on the accompanying CD. Folder numbers on the CD correspond to attachment numbers. As an example, Attachment #2 is in Folder #2. The CD contains a copy of this inspection report, photographs taken during the inspection, emails between the facility and the compliance inspector, checklists, and completed forms.

HISTORY OF BUSINESS

The covered process of the facility is at 9037 Highway 168 in Palmyra, Missouri. The Bleigh Farms facility stores anhydrous ammonia for use on its own farm as fertilizer. The facility also includes storage and maintenance buildings. Bleigh Construction, a jointly owned business, is also on the 9037 Highway 168 property. At this location, the facility has one 30,000-gallon and two 6,000-gallon anhydrous ammonia bulk storage tanks, a loadout station for filling nurse tanks and other equipment, and as many as seven nurse tanks.

According to Mr. Bleigh, the facility also provides anhydrous ammonia to another farm, owned by Mr. Mark Carnes, as part of a 50-50 profit-sharing arrangement. Mr. Bleigh said that Mr. Carnes pays for his half of the ammonia and other materials used on the other farm in exchange for providing half of the profit earned on the other farm. After consulting with EPA, I concluded that Bleigh Farms was not eligible for the farmer exemption in 40 CFR 68.125 because the other farm is owned independently. I inspected the facility as a distributor of anhydrous ammonia under Program 2.

The following summarizes reported/observed amounts of anhydrous ammonia at the facility:

	Quantity (pounds)
	Anhydrous Ammonia
Quantity at the Time of Inspection	~0 ^(a)
Quantity listed in 2019 RMP Submission	214,331 ^(b)

Notes:

- (a) On August 1, 2022, the volume gauges of the three storage tanks indicated that they were all nominally empty. I observed that the gauges of all three tanks were set at < 5%, which is the lowest measurement on the gauge.
- (b) See facility's 2019 RMP Submission (Attachment 2). This quantity assumes that all nurse tanks are also full, and a maximum storage capacity of 85% for each tank.

PERSONS INTERVIEWED AND INDIVIDUAL RESPONSIBILITIES

I interviewed the following persons as part of the inspection process:

Robert Bleigh.....President, Bleigh Farms

OPENING CONFERENCE

I arrived at the Bleigh Farms facility at 9037 Highway 168 on August 11, 2022, at approximately 8:30 a.m. Mr. Bleigh met me in the lobby and escorted me to his office. I explained that I was conducting the inspection under authority of the CAA's Chemical Accident Prevention Provisions, and that I would have to conduct a walk-through of the covered process, taking photographs. I also stated that after completing the walk-through and reviewing all applicable documents, I would conduct an exit interview to explain my findings, provide a receipt for any requested document copies, and answer questions. I showed Mr. Bleigh my inspector credentials from EPA Region 7. I then filled out a Notice of Inspection Form (Attachment 1), and I explained that my inspection was for enforcement purposes and that enforcement actions could result from the inspection. Mr. Bleigh signed the Notice of Inspection Form.

After the introduction, Mr. Bleigh described operations at the facility, especially as these pertained to management of anhydrous ammonia. Bleigh Farms uses the anhydrous ammonia on its own farm and provides anhydrous ammonia to Mr. Carnes's farm. According to Mr. Bleigh, the three tanks have been in service for approximately 50 years. He said that the two 6,000-gallon tanks were moved farther from Highway 168 in 2018 to the west side of the 30,000-gallon tank.

I asked to see the facility RMP documentation, including the off-site consequence analysis, safety information, hazard reviews, operating procedures, training records, maintenance records, and compliance audits. Mr. Bleigh presented documentation to me, and I noted my findings on the RMP Program Level 2 Process Checklist and the Supplemental Checklist for Ammonia Fertilizer Sector Inspections (Attachment 1).

After an overview of facility operations and review of documents, I conducted a walk-through of the facility accompanied by Mr. Bleigh. During the walk-through, I observed the three anhydrous ammonia storage tanks, a loadout station for nurse tanks and equipment, and nurse tanks. I noted indications on the volume gauges that all three tanks were nominally empty, with the lowest

reading on the gauge being 5%. Photographs I took during the walk-through are in the photographic log in Attachment 3 and in Folder 3 of the CD.

HAZARD ASSESSMENT

I asked Mr. Bleigh for the facility's hazard assessment OCA documentation, including the facility's prepared worst-case and alternative release scenarios. He provided documentation of the worst-case and alternative OCA hazard assessment, calculated using RMP*Comp in 2004 (Attachment 4). The facility assumed an urban topography, based on presence of surrounding buildings and other structures.

The documentation included:

- Parameters and assumptions, including failure scenarios identified under the Hazard Review; information used to estimate population within the distance-to-end-point radii; and data sources referenced to identify environmental receptors
- Rationale for selection of the alternative release scenario
- Methodology applied to determine distance to endpoints.

Based on calculations from RMP*Comp in 2004, the toxic endpoint under the worst-case scenario was 6.5 miles, based on assumed release of 184,000 pounds of anhydrous ammonia. These calculated values did not match the values in the 2019 RMP (5.6 miles and 131,200 pounds). As a point of reference, the facility had determined that the 30,000-gallon tank holds 131,200 pounds of anhydrous ammonia at its maximum fill, according to the RMP. The alternative release scenario values calculated in 2004 matched the values in the 2019 RMP. I asked when the values in the 2019 RMP had been calculated and if the facility had maintained documentation of these calculations. Mr. Bleigh was unable to find any more recent documentation of calculations and said that previous calculations had been performed by a consultant who had not been contracted by Bleigh Farms since 2014. He stated that the OCA numbers for the 2019 plan had been rolled over from the 2014 RMP.

I also asked if the facility had updated its calculations of the affected population for each OCA. Mr. Bleigh provided a document from 2009 showing population calculations using the 2004 endpoint distances and 2000 Census data (Attachment 4). These 2009 population numbers did not match the population numbers in the 2019 RMP. Mr. Bleigh did not know how the numbers in the 2019 plan had been calculated.

Based on this information, I identified the following preliminary finding:

- 2. The facility failed to update off-site consequence analyses (OCA) at least once every 5 years, as required by 40 CFR 68.30.**

PROCESS SAFETY INFORMATION

I examined the facility's process safety information. As part of this review, I verified that the facility had safety data sheets (SDS) for anhydrous ammonia (Attachment 5).

I requested documentation of the facility's maximum intended inventory for anhydrous ammonia. The maximum inventory was documented in the facility's emergency action plan, which was in a binder labeled "2009" (Attachment 5). The 2009 inventory appeared to be consistent with the number of storage and nurse tanks I observed during my inspection. The emergency action plan identifies a maximum inventory of 77,000 gallons. This maximum inventory is also listed as including the 30,000-gallon tank, two 6,000-gallon tanks, and up to ten 1,000-gallon on-site nurse tanks, each filled to 85%. The apparent discrepancy between this total (apparently 44,200 gallons) and the 77,000 gallon maximum is not explained in the text.

I asked Mr. Bleigh if the facility had any documentation of the safe upper and lower parameters for temperature, pressure, or flow. He replied that he did not have that documentation. The emergency action plan states that the information is in an appendix, but the appendix was not with the plan during the inspection.

Based on this information, I identified the following preliminary finding:

- 3. The facility failed to document upper and lower temperature, pressure, flow, and composition as part of its safety documentation, as required by 40 CFR 68.48(a)(3).**

HAZARD REVIEW

I asked Mr. Bleigh whether the facility had conducted hazard reviews as required by 40 CFR 68.50. He provided a review performed in 2014 (Attachment 7). The review included the required elements, including hazards associated with the process and regulated substances; opportunities for accidental release; safeguards to limit malfunctions or errors; and steps to detect or monitor releases. I asked if any other hazard reviews had occurred before or after the 2014 review. He responded that he did not know of any before or since the 2014 review.

Based on this information, I identified the following preliminary finding:

- 4. The facility failed to update its hazard review at least once every 5 years, as required by 40 CFR 68.50(d).**

OPERATING PROCEDURES

I asked to review the facility's operating procedures for the facility's anhydrous ammonia process. Mr. Bleigh provided the SOPs for the facility (Attachment 8). I verified that the facility had procedures for normal operations and normal shutdown. The header text for these SOPs also stated that the normal operation procedures applied to initial startup and temporary operations. As well, the header text indicated inclusion in the emergency action plan of the SOPs for emergency shutdown and restart after emergency shutdown. However, these SOPs were not in the emergency action plan (Attachment 5). Based on this information, I identified the following preliminary finding:

- 5. The facility failed to document standard operating procedures (SOP) for emergency shutdown and restart after emergency shutdown, as required by 40 CFR 68.52(b).**

Following the SOPs was a table with an equipment inspection checklist. However, no guidance about potential consequences of deviation was evident. Based on this information, I identified the following preliminary finding:

- 6. The facility failed to document consequences of deviation in its SOPs, as required by 40 CFR 68.52(b)(7).**

TRAINING

I asked Mr. Bleigh how and when employees received training on ammonia operations. He replied that training of new employees consists of on-the-job training, including walking through the SOPs and checklists. He said that none of the employees receive refresher training. Based on this information, I identified the following preliminary finding:

- 7. The facility failed to conduct refresher training at least every 3 years, as required by 40 CFR 68.54(b).**

MAINTENANCE

I asked to see the facility's maintenance procedures and inspection documentation. Mr. Bleigh provided documentation of the facility's maintenance program to ensure mechanical integrity of process equipment, including procedures and logs of his inspections (Attachment 9). The procedures—taken from American National Standards Institute (ANSI) and American Society of Mechanical Engineers (ASME)—include requirements for daily and annual inspections and pressure testing of piping and hoses. Mr. Bleigh said that equipment is replaced or repaired as needed, either when a deficiency is observed during an inspection or at the end of the service life (as for hoses). According to Mr. Bleigh, all hoses and valves had been replaced in 2018 when the two smaller tanks were moved.

During the walk-through of the covered process, I observed that the tanks were not surrounded by barriers protecting the tanks from the road. In addition, the valves at the load-in area were not color-coded or labeled to distinguish the liquid fill and vapor return pipes, and the liquid fixtures past the breakaway were color-coded yellow, rather than the standard orange or red. Based on these observations, I identified the following preliminary finding:

- 8. The facility failed to implement procedures to maintain ongoing mechanical integrity of the process equipment following industry codes and standards, as required by 40 CFR 68.56(a).**

During the inspection, I noted the issue with identification of liquid and vapor phase fixtures on the NOPF, but inadvertently omitted the finding related to the barriers.

COMPLIANCE AUDITS

I asked to see the two most recent compliance audits the facility had conducted. Mr. Bleigh provided an audit that he had performed in 2020 (Attachment 10). No deficiencies were

identified; however, many items on the checklist had not been completed. I asked if any other audits had occurred. Mr. Bleigh was not sure when or if any earlier compliance audits had been performed. Based on this information I identified the following preliminary finding:

- 1. The facility failed to perform a compliance audit at least once every 3 years, as required by 40 CFR 68.58(a).**

INCIDENT INVESTIGATION

I asked Mr. Bleigh if any previous incidents had resulted in or posed potential for catastrophic releases. He responded that no such incidents had occurred. Mr. Bleigh provided the 5-year accident log for the facility, which did not record any accidents requiring documentation in the RMP.

EMERGENCY RESPONSE

Mr. Bleigh told me that the facility would not respond to an accidental release of anhydrous ammonia, but would rely on the local fire department for response. He said that the facility regularly coordinates with the Palmyra Fire Department. Mr. Bleigh stated that the facility submits Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II reports to the Missouri Department of Public Safety's Emergency Response Commission, but he was not sure about the date of the most recent submittal of the report. EPA had furnished a copy of the facility's 2019 Tier II report before the inspection, but I did not find a more recent report in the facility's documentation.

After the inspection, I contacted the Marion County LEPC and spoke to Ms. Teya Stice. She said that the County had no record of a 2021 Tier II report submitted by Bleigh Farms. Based on this information, I made the following preliminary finding:

- 9. The facility failed to coordinate with the county LEPC, as required by 40 CFR 68.93. *This preliminary finding was identified based on post-inspection findings.***

MANAGEMENT

I asked Mr. Bleigh if the facility had developed a management system to oversee implementation of risk management program elements. Mr. Bleigh responded that the facility tracks open maintenance and inspection items using the inspection sheets described above and available in Attachment 9. Mr. Bleigh also provided the hard-copy binders that held the older records and associated tracking spreadsheets. However, many of these documents were out-of-date, and Mr. Bleigh was not sure if the findings identified elsewhere in this report had resulted from misplacement of records or failure to perform procedures. Based on this information, I made the following preliminary finding:

- 10. The facility failed to maintain a management system to oversee implementation of risk management program elements, as required by 40 CFR 68.15. *This preliminary finding was identified based on post-inspection findings.***

PHOTOGRAPHS

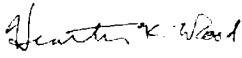
During the site walk-through, I took 17 digital photographs. All of these are in Folder 4 of the CD, and selected photographs appear in a photographic log in Attachment 4.

CLOSING CONFERENCE

At the end of the inspection, I reviewed my observations and the preliminary findings with Mr. Bleigh. I explained that additional findings could be identified via post-inspection review of the documents obtained. I provided the Confidentiality Notice and the completed Receipt for Samples and Documents form (Attachment 1). Mr. Bleigh reviewed the receipt for documents first, signed it, and completed the Confidentiality Notice, indicating that the document copies provided to me did not contain confidential business information. I then filled out the Notice of Preliminary Findings form (Attachment 1) and provided it to Mr. Bleigh for review and signature.

I departed the facility around 11:30 a.m. on August 11, 2022.

This report concludes my inspection activities regarding the Bleigh Farms facility in Palmyra, Missouri.

 Digitally signed by Heather
Wood
Date: 2022.09.12 11:19:35
-05'00'

Heather K. Wood
Compliance Inspector

ATTACHMENTS

- 1 – Inspection Forms and Checklists
- 2 – 2021 Risk Management Plan
- 3 – Photographs
- 4 – Off-site Consequence Analysis
- 5 – Safety Information
- 6 – Emergency Plan
- 7 – Hazard Review
- 8 – Standard Operating Procedures
- 9 – Maintenance Documentation
- 10 – Compliance Audit

CD – Attached to Report

NOTICE OF PRELIMINARY FINDINGS

FIRM NAME: BLEIGH FARMS

RMP/TRI NO: 1000 0003 6409

FIRM ADDRESS: 9037 HIGHWAY 168
PALMYRA MO 63461

INSPECTOR: HEATHER K. WOOD

DATE: 8/11/22

An inspection of the above facility has just been completed. The purpose of the inspection was to determine compliance with the requirements of the Clean Air Act Section 112r and Emergency Planning Community Right-to-Know Act. The following potential violations were identified:

CITATION	DESCRIPTION
1 <u>68.58(a)</u>	<u>FAILURE TO DO COMPLIANCE AUDIT EVERY 3 YRS</u>
2 <u>68.30</u>	<u>FAILURE TO UPDATE OFF-SITE CONSEQUENCE ANALYSIS</u> <u>EVERY 5 YRS (</u>
3 <u>68.48(a)(3)</u>	<u>FAILURE TO DOCUMENT UPPER + LOWER TEMPERATURE,</u> <u>PRESSURE, FLOW, + COMPOSITION</u>
4 <u>68.50(d)</u>	<u>FAILURE TO UPDATE HAZARD ASSESSMENT EVERY</u> <u>5 YRS.</u>
5 <u>68.52(b)</u>	<u>FAILURE TO DOCUMENT STANDARD PROCEDURES FOR</u> <u>EMERGENCY SHUTDOWN, RESTART AFTER EMERGENCY</u> <u>TEMPORARY OPERATIONS</u>

This Notice is provided to call your attention to those areas of potential noncompliance at the earliest possible time. This Notice does not constitute a Notice of Violation, Order, or Civil Action pursuant to the Emergency Planning Community Right-to-Know Act of 1986 (SARA Title III) or Section 113 of the Clean Air Act (CAA), and may not be a complete listing of all violations which may be identified as a result of this inspection.

You are encouraged to take corrective action to address these preliminary findings. Please submit the actions you take and/or a schedule of the actions to EPA in writing as soon as possible.

BETH KOESTERER

HEATHER K. WOOD 

Phone: 913-557-7673

U.S. Environmental Protection Agency
11201 Renner Blvd.
Lenexa, Kansas 66219

Corrective actions you have taken may be considered in any subsequent U.S. EPA enforcement follow-up, to the extent allowed by Agency regulations, guidance, and policies.

The undersigned hereby acknowledges receipt of a copy of this Notice.

PRINTED NAME: Robert Bleigh

TITLE: Manager

SIGNATURE: Robert Bleigh

DATE: 8-11-2022

The EPA Region VII Pollution Prevention Team can help you identify pollution prevention and waste reduction opportunities. For more information, email: rivas.marcus@epa.gov

NOTICE OF PRELIMINARY FINDINGS

FIRM NAME: BLEIGH FARMS

RMP/TRI NO: 1000 0003 6409

FIRM ADDRESS: 9037 HWY 168

PALMYRA MO

INSPECTOR: HEATHER K. WOOD

DATE: 8/11/2022

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CITATION	DESCRIPTION
<u>6 FAILURE TO</u> <u>68.52(b)(7)</u>	<u>FAILURE TO DOCUMENT CONSEQUENCES OF</u> <u>DEVIATION IN SOP</u>
<u>7 68.54(b)</u>	<u>FAILURE TO CONDUCT REFRESHER TRAINING</u> <u>EVERY 3 YRS</u>
<u>8 68.56(a)</u>	<u>FAILURE TO LABEL OR COLOR CODE VALVES TO</u> <u>SHOW IF IN CONTACT WITH LIQUID OR</u> <u>VAPOR PHASES</u>
<u>9</u>	

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U.S. Environmental Protection Agency
11201 Renner Blvd.
Lenexa, Kansas 66219

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The undersigned hereby acknowledges receipt of a copy of this Notice.

PRINTED NAME: Robert Bleigh

TITLE: MANAGER

SIGNATURE: ROBERT BLEIGH

DATE: 8/11/2022

The EPA Region VII Pollution Prevention Team can help you identify pollution prevention and waste reduction opportunities. For more information, email: rivas.marcus@epa.gov