CAA 112(r) INSPECTION REPORT

Name: Ag Partners LLC	
Address: 312 S. Railway Avenue, Calumet, Iowa 51009	**Date of Inspection**: June 30, 2022
County: O'Brien County	**Case No**: 22IA0630
Phone: (712) 446-3307	**RMP No**: 1000 0009 6638
High Risk: No	**FRS No**: 1100 0055 8593
CAA Title V: No	**Program Level**: Program 2
Mailing Address: 30 E. Main Street, PO Box 38, Albert City, Iowa 50510	
Process: Agronomy business, including retail sale of anhydrous ammonia	

SUMMARY OF OBSERVATIONS

A review of documents pertaining to Ag Partners at 312 S. Railway Avenue, Calumet, Iowa (facility), and an inspection at that facility—both with focus on Chemical Accident Prevention Provisions (Title 40 *Code of Federal Regulations* [CFR] Part 68) did not identify any preliminary findings.

INTRODUCTION

I, Heather Wood, Tetra Tech, Inc. (Tetra Tech), as a representative of U.S. Environmental Protection Agency (EPA) Region 7, inspected the Ag Partners facility in Calumet, O'Brien County, Iowa, on June 30, 2022. On June 23, 2022, I had attempted to reach Mr. Matt Ricke, Location Leader for Ag Partners LLC in Calumet, by telephone to notify him of an inspection that I had originally planned for June 28. I left a voicemail and followed up by email the same day to notify him of the upcoming inspection. Ms. Melanie Ziems, the corporate environmental health and safety director for Ag Partners, returned my phone call later that day. She asked if the inspection could be re-scheduled for June 30 due to scheduling issues with facility and corporate personnel. I confirmed an inspection date of June 30 and a start 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 9) 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 312 S. Railway in Calumet, Iowa. The Ag Partners facility supplies anhydrous ammonia as a retailer to farmers for use as fertilizer. At this location,

the facility has two 12,000-gallon anhydrous ammonia bulk storage tanks, a loadout station for filling nurse tanks, and nurse tanks. The facility also includes storage and maintenance buildings, an office building, and aboveground tanks for distribution of petroleum fuels. The administrative offices for Ag Partners are in Albert City, Iowa.

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

	Quantity (pounds)
	Anhydrous Ammonia
Quantity at the Time of Inspection (bulk storage tanks only)	~78,000 [(a)]
Quantity listed in 2022 RMP Submission	540,000 [(b)]
Quantity in Maximum Inventory Documentation	687,444 [(c)]

Notes:

(a) On June 30, 2022, I observed the volume gauges of both of the 12,000-gallon vessels at approximately 70% full (8,400 gallons in each). The facility uses a conversion factor of 4.6638 pounds per gallon.

(b) See facility's 2022 RMP Submission (Attachment 2). This quantity assumes that all nurse tanks are also full.

(c) See facility's maximum inventory calculations for documentation of safety information (Attachment 3).

PERSONS INTERVIEWED AND INDIVIDUAL RESPONSIBILITIES

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

Melanie Ziems .....EHS Director, Ag Partners
Matt Ricke.....Calumet Location Leader, Ag Partners
Paul Wilkens ..... Calumet Certifying Official, Ag Partners
Heather Litwiller. ..... Consultant, Compass Compliance

OPENING CONFERENCE

I arrived at the Ag Partners facility office at 312 S. Railway Avenue on June 30, 2022, at approximately 8:30 a.m. I was escorted to the conference room where Ms. Ziems, Mr. Ricke, Mr. Wilkens, and Ms. Litwiller met me. 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. Ricke and Ms. Ziems 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. Ms. Ziems signed the Notice of Inspection Form.

After the introduction, Mr. Ricke, Ms. Ziems, and Mr. Wilkens described operations at the facility, especially as these pertained to management of anhydrous ammonia. Ag Partners sells anhydrous ammonia to farmers in the fall and spring, and Ag Partners had bought the ammonia storage vessel and installed it when the facility began operations. Ms. Litwiller explained that her consulting firm assists Ag Partners in most of its anhydrous ammonia compliance activities.

Mr. Ricke and Ms. Ziems said that no release of anhydrous ammonia had occurred at the facility. I asked Mr. Ricke about a report of an incident in November 2017 when an employee was splashed with anhydrous ammonia, requiring hospitalization (Attachment 4). The incident was reported to the Occupational Safety and Health Administration (OSHA), and a fine was levied against the facility. The incident was not included in a May 2019 submission of the RMP, but it was included in the June 2022 submission (Attachment 2). Mr. Ricke and Ms. Ziems explained that the release had occurred at a client's property while an employee of Ag Partners was servicing an applicator owned by the client. Because the equipment was not owned by Ag Partners and the location of the release was not at the facility or part of the regulated process, Ag Partners did not consider that this release required inclusion in the RMP accident history. They said that the incident was included in the 2022 RMP out of an abundance of caution and to address the OSHA report.

After an overview of facility operations, I conducted a walk-through of the facility accompanied by Ms. Ziems, Mr. Ricke, Mr. Wilkens, and Ms. Litwiller. During the walk-through, I observed the two 12,000-gallon anhydrous ammonia storage vessels, a loading rack for nurse tanks, and nurse tanks. I noted that the volume gauges of both of the 12,000-gallon vessels read approximately 70% full (8,400 gallons in each). I saw staged nurse tanks north of the storage vessels. Photographs I took during the walk-through are in the photographic log in Attachment 5 and in Folder 5 of the CD.

We returned to the office, and 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. Ms. Ziems presented documentation to me, and I directed questions to both her and Mr. Ricke. I noted my findings on the RMP Program Level 2 Process Checklist (Attachment 1).

HAZARD ASSESSMENT

I asked Ms. Ziems for the facility's hazard assessment off-site consequence analysis (OCA) documentation, including the facility's prepared worst-case and alternative release scenarios. Ms. Ziems provided documentation of the worst-case and alternative OCA hazard assessment, calculated using RMP*Comp (Attachment 6). 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, the toxic endpoint under the worst-case scenario is 2.8 miles, based on assumed release of the total volume of one of the 12,000-gallon storage tanks. Using 2010 U.S. Census data, the total number of individuals exposed in private residences would be 306 people. Under the alternative release scenario, with a pull-away of the

transport vessel during delivery assumed, calculations from RMP*Comp indicated a toxic endpoint of 0.3 mile, with a population of 100 people exposed.

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.

Following the inspection, I noted that the facility's 2022 RMP submission in Section 1 lists an anhydrous ammonia quantity of 540,000 pounds, but the maximum quantity documentation provided during the inspection (Attachment 3) listed a maximum capacity of 687,444 pounds. According to Ms. Ziems, the facility recently increased the number of nurse tanks. She said that the 687,444 pounds reflected a maximum total quantity assuming all nurse tanks associated with Ag Partners were at the facility and were full, for a total of 123,400 gallons of anhydrous ammonia in nurse tanks.

Based on the total capacity of 147,400 gallons (24,000 in the storage vessel and 123,400 in nurse tanks) and using the facility's conversion factor of 4.6638 pounds per gallon, this amount is reasonably consistent with the "total facility storage capacity" in the RMP. The hazard assessment is based on a release from one of the 12,000-gallon tanks and is unaffected by a change in the number of nurse tanks, so I concluded that the RMP did not require an update for this change in the maximum inventory. Ms. Ziems said that the quantity would be changed, as needed, during the next regularly scheduled update of the RMP.

I inquired whether the facility had established safe upper and lower temperatures and pressures. Ms. Ziems provided documentation of the upper and lower temperatures, pressures, and flow rates for storage and use ("Process Limits" in Attachment 3).

I asked Ms. Ziems if the facility had compiled written information regarding the anhydrous ammonia equipment. Ms. Ziems provided the specifications for the 12,000-gallon tanks, which were manufactured in the 1960s. These tank specifications were also documented in the semi-annual maintenance inspections (Attachment 7). During the inspection, I also observed the certification plates on the eastern ends of the tanks.

HAZARD REVIEW

I asked Ms. Ziems whether the facility had conducted hazard reviews as required by 40 CFR 68.50. She provided reviews conducted in 2014 and 2019 (Attachment 8). The 2019 review included the required elements, including the 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. The facility had identified no deficiencies during the 2019 review.

OPERATING PROCEDURES

I asked to review the facility's operating procedures for the facility's anhydrous ammonia process. Ms. Ziems provided the standard operating procedures (SOP) for the facility (Attachment 9). I verified that the facility had procedures for initial startup and startup after emergency shutdown; normal operations; and normal and emergency shutdown. The SOPs also

included a table detailing potential consequences of deviation. The facility did not have an SOP for temporary operations, but did have documentation of why this SOP is not required.

The SOPs for operating a toolbar applicator system included a comment reinforcing the requirement to assume presence of pressurized anhydrous ammonia residue somewhere in the system. According to Mr. Ricke and Ms. Ziems, this comment was in the SOP when the applicator accident happened in 2017. They said that the incident was the result of inadequate training and administrative controls rather than a deficiency in the SOPs.

TRAINING

Mr. Ricke and Ms. Ziems told me that Ag Partners annually trains employees involved in the anhydrous ammonia process, and Ms. Ziems provided the training log-in records for training in 2021 and 2022 (Attachment 10). Mr. Ricke also said that regular training occurs as part of monthly safety meetings.

MAINTENANCE

I asked to see the facility's maintenance procedures and inspection documentation. Ms. Ziems provided documentation of the facility's maintenance program to ensure mechanical integrity of process equipment (Attachment 7). The procedures—based on those recommended by 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, including underground piping. Mr. Ricke and Mr. Wilkens 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). Mr. Ricke also provided documentation of inspections and replacement schedules for equipment (Attachment 7).

COMPLIANCE AUDITS

I asked to see the two most recent compliance audits the facility had conducted. Ms. Ziems provided audits performed in 2014, 2017, and 2020; a copy of the latter is included in Attachment 11. Mr. Ricke, Ms. Ziems, and Mr. Russ Bennett performed the 2020 audit. The only finding identified in 2020 was inability to locate documentation for the 2017 audit. This deficiency was corrected.

INCIDENT INVESTIGATION

During the opening conference, I asked Mr. Ricke and Ms. Ziems about the October 2017 incident that resulted in hospitalization of an employee for chemical burns. I inquired whether they had performed an investigation or taken measures after the investigation to prevent future incidents. Ms. Ziems furnished copies of the incident investigation (Attachment 4), which identified human error as the root cause of the release. She also provided copies of the post-investigation corrective actions (Attachment 4).

I also noted that the 5-year accident history in the 2019 RMP had not been updated with the incident (Attachment 2). Mr. Ricke and Ms. Ziems said that they thought the RMP update was not required because the release was not on facility property (so not associated with the regulated process). They said that the incident had been included in the 2022 RMP to address the OSHA report that was associated with the incident. I concluded that the incident report was not required

in the five-year history section of the RMP because it did not meet the reporting criteria in 40 CFR 68.42 (that is, it was not associated with a "covered process").

EMERGENCY RESPONSE

Mr. Ricke 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 Calumet Fire Department, and that the fire chief's most recent visit to the facility to review operations had occurred on April 17, 2022 (Attachment 12). Ms. Ziems stated that the facility had emailed copies of the facility's 2022 Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II report to Calumet Fire Department. A copy is in Attachment 12.

MANAGEMENT

I asked Mr. Ricke and Ms. Ziems if the facility had developed a management system to oversee implementation of the risk management program elements. Ms. Ziems responded that the facility uses DECRA/RCI software to track open maintenance and inspection items. Mr. Ricke replied by citing application of the system developed by Ms. Ziems to coordinate the risk management program. Ms. Ziems overviewed that system by showing me the hard copy binder with all required records and associated tracking spreadsheets.

PHOTOGRAPHS

During the site walk-through, I took 28 digital photographs. All of these are in Folder 5 of the CD, and selected photographs appear in a photographic log in Attachment 5.

CLOSING CONFERENCE

At the end of the inspection, I reviewed my observations and the preliminary findings with Mr. Ricke, Ms. Ziems, Mr. Wilkens, and Ms. Litwiller. 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). Ms. Ziems 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 departed the facility around 11:55 a.m. on June 30, 2022.

This report concludes my inspection activities regarding the Ag Partners facility in Calumet, Iowa.

Digitally signed by Heather Wood
Date: 2022.08.01 14:59:24 -05'00'

Heather K. Wood
Compliance Inspector

ATTACHMENTS

1 – Inspection Forms and Checklists
2 – Risk Management Plans
3 – Safety Information
4 – Incident Investigation Report
5 – Photographs
6 – Off-site Consequence Analysis
7 – Maintenance Documentation
8 – Hazard Review
9 – Standard Operating Procedures
10 – Training Documentation
11 – Compliance Audit
12 – Emergency Response Documentation

CD – Attached to Report