

CAA112(r) INSPECTION REPORT

Name: Ray-Carroll County Grain Growers, Inc., Sumner	
Address: 314 S Centre Street Sumner, MO 64681	Date of Inspection: August 27, 2024
County: Chariton	Case No: 24MO0827
Phone: (660) 856-3535	RMP No: 1000 0003 4697
High Risk: No	FRS No: 110012608801
CAA Title V: No	Program Level: Program 2
Process: 42491 Farm Supplies Merchant Wholesalers	

SUMMARY OF OBSERVATIONS

A review of the Ray-Carroll County Grain Growers, Inc., Sumner (Ray-Carroll) documents and facility revealed the following deficiencies:

1. Ray-Carroll failed to protect the entire container by suitable barriers to avoid damage by trucks per recognized and generally accepted good engineering practices (CGA G-2.1-2014 section 6.7.1) as required by 40 CFR 68.48(b).
2. Ray-Carroll failed to review or update the hazard review at least every five years (2013 - 2023) as required by 40 CFR 68.50(d).
3. Ray-Carroll failed to update the RMP every five years as required by 40 CFR 68.190(b)(1).
4. Ray-Carroll failed to change PRVs by replacement date per recognized and generally accepted good engineering practices (CGA G-2.1-2014 section 5.8.16) as required by 40 CFR 68.56(d). (Finding identified post inspection.)

INTRODUCTION

I, Christina Gallick, a Compliance Inspector with the U.S. Environmental Protection Agency (EPA), Region VII, accompanied by Aaron Banes, U.S. EPA Region VII Inspector in training, and Ethan Smith, Missouri Department of Natural Resources, inspected Ray-Carroll County Grain Growers, Inc., Sumner in Sumner, Missouri on August 27, 2024.

I called the operator number on the RMP on August 21, 2024, to announce the inspection. I was unable to speak with any of the RMP contacts and left a message with a secretary. I followed up with an email to their RMP contact, emergency contact, and point of contact. The email explained that I would be conducting an inspection to determine compliance with the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and the Clean Air Act (CAA) of 1990 Section 112(r) at Ray-Carroll County Grain Growers, Inc., Sumner. I explained that the inspection would start at 8:30 am on Tuesday, August 27, 2024, and who was part of the

inspection team. The facility was selected for inspection because the RMP for the location has not been refilled since May 30, 2018. I anticipated the inspection would take about one day. I explained I would tour the facility and take photos of the process equipment. I explained that I would bring a portable scanner to copy documents and that they had the ability to claim information as confidential. I included a list of documents I was interested in reviewing. I explained that employees have the right to participate in inspections and be notified of its occurrence. I reached out to Mr. Junkins on August 22, 2024. He was in meetings all day, so I was unable to talk to him. On August 23, 2024, I received a call from Mr. Junkins, and we discussed the inspection. He confirmed that the time of the inspection worked for him and that he would be able to be at the facility.

We conducted the inspection to determine if the facility complies with Section 112(r) of the Clean Air Act (CAA), as amended in 1990. We did not conduct an EPCRA inspection. I am currently working on receiving my EPCRA credentials. I planned on having my supervisor, Dave Hensley, virtually attend the inspection as we covered the EPCRA portion of the inspection. Due to poor wireless data service, we were unable to virtually connect to Dave Hensley and could not complete the EPCRA portion of the inspection.

EPA's regulations describing how Section 112(r) of the CAA is to be implemented are found in the Code of Federal Regulations, Title 40, Part 68. The law and the implementing regulations 40 CFR 68, Chemical Accident Prevention Program (CAPP) require that the facilities must submit a complete Risk Management Plan (RMP) to the EPA for those regulated chemicals they process in amounts above the applicable threshold quantities after June 21, 1999, and to implement the program described in the RMP.

The finalized inspection report as well as the photos and photo locations (Appendix 2) will be transmitted via e-mail to the facility owner/ operator. A copy of this inspection report, documents obtained, photographs taken during the inspection, checklists and completed forms will be maintained in the EPA facility file.

HISTORY OF BUSINESS

Ray-Carroll County Grain Growers, Inc. has 11 locations, all of which are in Missouri. The Sumner Ray-Carroll location opened in the 1950s or 1960s. The facility handles grain, sells anhydrous ammonia as a fertilizer, sells propane direct to consumers, and has a fuel station. The facility has two full time employees. Sumner is a town in Chariton County, Missouri with a population of 78 according to the 2020 census.

	Quantity of Anhydrous Ammonia (Pounds)
RMP Quantity	250,000
2023 Tier II (maximum daily amount)	100,000 – 499,999
Maximum Intended Inventory	250,000
Quantity during inspection (bulk tank only)	122,400

PERSONS INTERVIEWED AND INDIVIDUAL RESPONSIBILITIES

Dean Alling Safety Director

OPENING CONFERENCE

I and Aaron Banes arrived at the facility on August 27, 2024, at 8:30 am. We entered the office building where Mr. Alling explained that he started to prepare the RMP for the Sumner facility but forgot to finish it. After receiving the inspection notice email, he checked CDX and saw that the Sumner RMP was in the overdue section of the database. Mr. Alling took over the safety position at Ray-Carroll in 2022.

To start the opening conference, I passed around a sign in sheet. I introduced myself and explained that I am a credentialed CAA 112(r) inspector and showed my credential. Aaron Banes introduced himself as an inspector in training. I showed the notice of inspection form and explained this document stated that we were conducting a CAA 112(r) inspection. I signed the document and Mr. Alling signed for Ray-Carroll (Appendix 1). I explained that CAA section 114 gave us the authority to conduct inspections. I explained that CAA 112(r)(6)(L) requires the opportunity for employee participation. I explained that the two employees outside directed us into the building and asked if these employees were aware of the inspection. Mr. Alling answered yes. I explained that I needed to complete a field tour as part of the inspection. I asked if we could start with the tour because of the extreme heat forecasted that day. Mr. Alling and Mr. Junkins agreed. Mr. Smith arrived at the facility during the opening conference.

FIELD TOUR

We began the field tour at about 8:45 am. We started by looking at the 30,000-gallon bulk tank that had been painted a few years ago. All photos taken are in the photolog (Appendix 2). I took a photo of the bulkhead (IMG_0058.jpg). Behind the bulkhead was the former safety water container which is broken. The facility is shifting to more durable metal containers for safety water. The bulk tank was about 80% full (IMG_0059.jpg). The name plate for the tank was legible (IMG_0060.jpg). The bulk tank has a pump and a compressor, but the compressor is rarely if ever used (IMG_0061.jpg). The emergency shutoff can be pulled from the steps of the risers (IMG_0062.jpg). The facility currently has a safety water container south of the risers (IMG_0063.jpg). All hoses were dated to be removed in 2027 (IMG_0064.jpg). In IMG_0065.jpg, you can see wheel chocks at the north and south end of the risers, which facility operating procedures require to be used when filling nurse tanks. Hoses are secured when not in use (IMG_0066.jpg).



IMG_0068.jpg

Concrete barriers protect the piping on the western side from collision but do not extend to protect all sides of the tank or the eastern side of the piping (IMG_0068.jpg). CGA G-2.1 – 2014 section 6.7.1 states, “Containers and appurtenances shall be located or protected by suitable barrier to avoid damage by trucks or other vehicles.” 40 CFR 68.48(b) states, “The owner or operator shall ensure and document that the process is designed in compliance with recognized and generally accepted good engineering practices.” I identified the following finding:

- 1. Ray-Carroll failed to protect the entire container by suitable barriers to avoid damage by trucks per recognized and generally accepted good engineering practices (CGA G-2.1-2014 section 6.7.1) as required by 40 CFR 68.48(b).**

I observed that the material protecting the tank saddle on the pier was not a fiber pad (IMG_0070.jpg). The material was cracking. Ray-Carroll employees were not sure what material was used. Ray-Carroll uses pressure gauges (IMG_0071.jpg) to perform pressure tests on the underground piping.

Throughout the tour I noticed that some of the flexible connectors appeared to be crooked, but unlikely to be at an angle to exceed manufacturer’s specifications (see IMG_0061.jpg & IMG_0067.jpg). I noticed that a flexible connector appeared to have paint from the riser on it and recommended that facility covered the connectors to protect them when painting risers. I also noticed the collar of some of the flexible connectors were painted (see flexible connectors to bulkhead in IMG_0061.jpg). The collar contains the nameplate for the connectors and should not be painted.

Ray-Carroll shares nurse tanks between the Sumner and Brunswick locations. Currently only the 1450-gallon nurse tanks at Sumner are used (IMG_0072.jpg & IMG_0073.jpg). The nurse tanks I observed had residual ammonia in them. Some of the labels were starting to peel off. I

observed that the facility had a pile of replacement labels in the office. The labels will be put on the nurse tanks before they are used in the fall. Ray-Carroll also has 1000-gallon nurse tanks at the Sumner facility, but these are not in service and will not be used until they are repaired and turned into doubles (IMG_0074.jpg).

During the tour Mr. Alling explained that Ray-Carroll owned some American Welding and Tank nurse tanks. After seeing the joint Federal Motor Carrier Safety Administration and the Pipeline and Hazardous Materials Safety Administration [safety advisory](#) for the possible catastrophic failure of these tanks, Ray-Carroll had all their American nurse tanks tested and offered to schedule testing for farmer's nurse tanks. All of the nurse tanks that failed the test have been removed from service.

After the tour Aaron, Ethan, and I all noted that we smelled some ammonia by the bulk tank but could not determine where it was coming from. I smelled ammonia on the west side near the center of the tank. Ethan thought the ammonia he smelled was coming from the safety water. Aaron smelled ammonia on the south side and smelled it the strongest on the northwest side of the tank.

HAZARD ASSESSMENT

Mr. Alling showed me the RMP binder for the facility that contained the program elements. The hazard assessment was last updated February 24, 2023. The facility uses the DEGADIS model to calculate the worst-case and alternate case scenarios. The worst-case scenario is a complete release of the 30,000-gallon bulk tank that is 85% full. The alternative case release is from the hose at the risers. Ray-Carroll selected urban terrain which is appropriate due to the presence of buildings and trees around the facility. Residential population that would be impacted by release was determined using Missouri Circular Area Profiles utilizing 2020 census data. I collected all documentation of the hazard assessment except the RMP printout (Appendix 3). Ray-Carroll does not have a five-year accident history.

SAFETY INFORMATION

Safety information is in Appendix 4. Mr. Alling explained that each time Ray-Carroll uses a different anhydrous ammonia supplier they update the SDS in the binder. The newest SDS was added on February 7, 2024. Their maximum intended inventory was last updated February 24, 2023. The maximum intended inventory considers a maximum fill capacity of 85%. Mr. Junkins explained that the maximum intended inventory includes the bulk tank and all nurse tanks stored at the facility, including the 1,000-gallon nurse tanks that are currently out of service. The Sumner and Brunswick locations share nurse tanks. The maximum intended inventory calculation assumes that all of the shared nurse tanks are at the Sumner location.

Ray-Carroll documented safe upper and lower temperatures, pressures, flows and product composition. Ray-Carroll has a legible name plate on its bulk tank and documented piping requirements. Ray-Carroll follows OSHA 1910.111, state anhydrous ammonia regulations, and CGA G-2.1 – 2014.

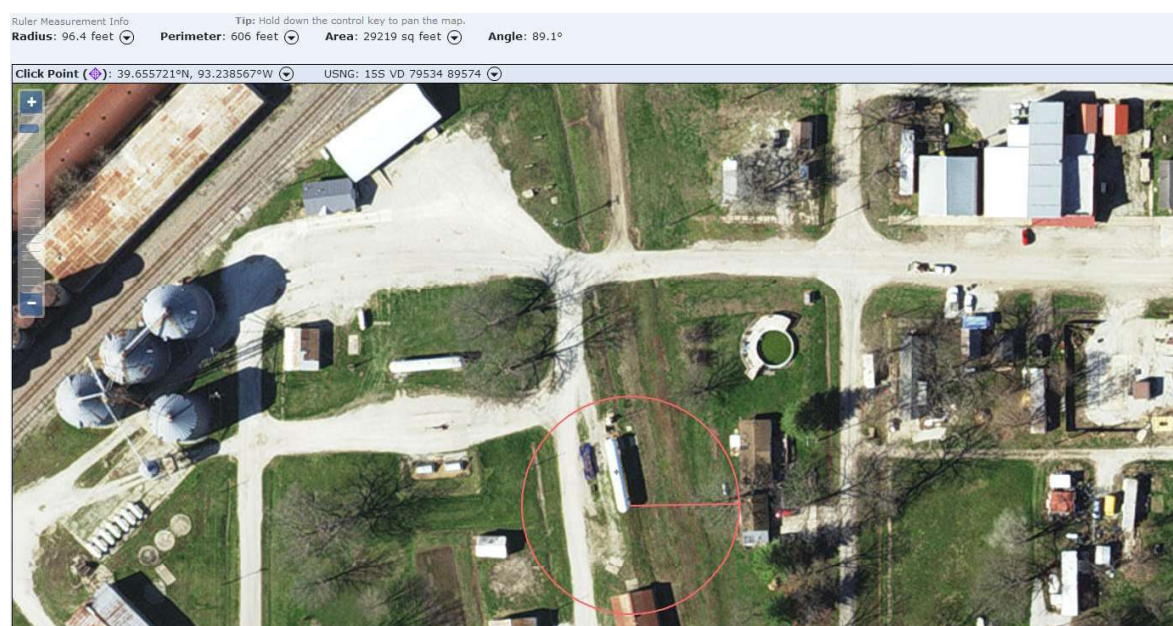
Mr. Alling explained that the propane tank at Ray-Carroll Sumner is maintained by Ray-Carroll Fuel while the ammonia equipment is serviced by Ray-Carroll Grain. This separation of labor

prevents parts that are acceptable for propane but incompatible with ammonia from being installed on the ammonia tank. Ray-Carroll has also brought in a third-party auditor to review the facility's recognized and generally accepted good engineering practices compliance. The facility had documentation of name plate information for a bulk tank that was removed from the location to Brunswick in the early 2000s. I explained that it was good practice to document this information because it can allow you to replace a tank name plate if something happens to it. I recommended that the facility creates a similar document for the bulk tank that is currently onsite. The facility sent me an image of the current bulk tank's nameplate during the inspection. The facility keeps PPE by the risers and in the office. There have been no recent major changes at the facility.

HAZARD REVIEW

I reviewed the most recent hazard review that was conducted on February 24, 2023 (Appendix 5). The team included the location manager and another employee. The hazard review considered what-if process failures and included a job safety analysis, safety equipment review, and equipment review. No recommendations resulted from the hazard review.

During the field tour I noticed that there was a house very close to the storage tank. According to Marplot, the house is about 96 feet from the bulk tank at its closest point.



CGA G-2.1 – 2014 section 5.3.4 states, "In the absence of specifications of minimum distance by local jurisdictions, separation distance(s) for new, additional or relocated ammonia stationary storage containers and placement of containers covered by Sections 9, 10, 11, and 12 after January 1, 2002 shall be in accordance with Table 5." Table 5 says an ammonia storage container with a capacity of over 2,000 gallons to 30,000 gallons should be at least 300 feet from a place of public assembly or residential occupancy.

I asked if the risk of a house close to the tank was considered in the hazard review. Mr. Alling explained that they have talked to the homeowners near the tank about the hazards of the process.

I mentioned that the Government Accountability Office completed an investigation on RMP facility's risk to natural hazards. The Sumner facility was in an area marked to have moderate or other flood hazards. I mentioned that I could not see a flood risk on a Federal Emergency Management Agency flood map. I was told that in the 2019 Grand River flooding, the water did not reach the facility. The roads to the town may be cut off by flooding, but the town itself isn't likely to flood.

I asked when the previous hazard review was completed. The facility thought it had been done in 2018, but their binder only had a hazard review from January 18, 2013. This would be a 10-year gap between hazard reviews. 40 CFR 68.50(d) states, "The review shall be updated at least once every five years." I identified the following finding:

2. Ray-Carroll failed to review or update the hazard review at least every five years (2013 - 2023) as required by 40 CFR 68.50(d).

STANDARD OPERATING PROCEDURES (SOPs)

I reviewed Ray-Carroll's SOPs (Appendix 6). There are procedures for initial startup, normal operations, temporary operations, emergency shutdown and operations, normal shutdown, and startup following an emergency shutdown. The consequences of deviations are listed in parentheses following steps. Equipment inspections are included within operating procedures. There are SOPs for uncommon operations like loading with a compressor. If employees do not follow SOPs, disciplinary action will occur. Operating procedures are discussed during the yearly RMP meetings. The SOPs appear to meet the requirements in 40 CFR 68.52.

TRAINING

I reviewed Ray-Carroll's training policy and took a copy (Appendix 7). The policy includes training requirements and schedules for initial and refresher training. It describes who must be trained and how to maintain records. I reviewed Ray-Carroll's electronic training records. Competence is shown by hands on demonstration and through completion of online courses. Employees complete awareness training online and a refresher training annually. Hazard awareness training is in person. New employees receive new employee training.

MAINTENANCE

I asked to review maintenance records at the facility. The facility had records in the RMP binder and in the maintenance binder. I took copies of maintenance records from the last 5 years for the bulk tank and the maintenance schedule for nurse and bulk tanks (Appendix 8). The facility has a yearly inspection log for the bulk tank that lists the tank's serial number. The 2024 annual inspection had not occurred at the time of the inspection. The training policy (Appendix 7) includes information about training employees on maintenance.

Mr. Alling explained that the facility annually pressure tests the underground piping. These records are stored at the Brunswick location. I asked to be sent a copy of the most recent

testing record. After the inspection I received a copy of the underground piping pressure test from June 2024. It is included in Appendix 8.

Mr. Alling explained that the pressure relief valves are checked every year to see if they need to be replaced. In the past the facility kept a written record of when a PRV was replaced, but there was no record for the last 5 years. I asked to see pictures of the PRV replacement dates on the bulk tank. On September 10, 2024, I received a picture of a PRV from the bulk tank that was manufactured May 2014 and had a replace by date of July 2019. CGA G-2.1 – 2014 section 5.8.16 states, “No container PRD shall be used after the replacement date as specified by the manufacturer of the device. If no date is specified, a pressure relief valve shall be replaced no later than 5 years following the date of its manufacture or last repair unless it has first been disassembled, inspected, repaired, and tested by the manufacturer, or by a qualified repair organization so that the valve’s condition and performance is certified as being equivalent to the standards for the original valve. The data regarding repairs or reassembly shall be indicated by stamping the body or attaching a tag pertaining to the valve with the month and year to replace or recertify. Example: 4/01.”

The photo showed that the PRVs currently on the bulk tank should have been replaced five years and two months before the photo was taken. The storage tank equipment schedule requires Ray-Carroll to check the service date of the pop-off valves, also known as PRVs, annually. Had the inspections of equipment occurred as scheduled the PRVs should have been replaced. 40 CFR 68.56(d) states, “The owner or operator shall perform or cause to be performed inspections and tests on process equipment. Inspection and testing procedures shall follow recognized and generally accepted good engineering practices. The frequency of inspections and tests of process equipment shall be consistent with applicable manufacturers' recommendations, industry standards or codes, good engineering practices, and prior operating experience.” After the inspection I identified the following finding:

4. Ray-Carroll failed to change PRVs by replacement date per recognized and generally accepted good engineering practices (CGA G-2.1-2014 section 5.8.16) as required by 40 CFR 68.56(d).

COMPLIANCE AUDIT

Mr. Alling showed Aaron Banes, U.S. EPA Region RVII Inspector in training, the two most recent compliance audits and we took a copy (Appendix 9). Aaron Banes reviewed the two most recent compliance audits and found the content to be acceptable. A post inspection review of the compliance audit documents revealed that the most recent compliance audit was 23 days past due. The two most recent compliance audits were dated January 15, 2021, and February 7, 2024.

INCIDENT INVESTIGATION

The location has not had a release in the past 5 years. I reviewed the facility’s incident investigation policy (Appendix 10). The policy requires that all incident investigations start within 48 hours and are conducted by a team with at least one person knowledgeable in the process and other persons with appropriate knowledge and experience. The standard incident

investigation form has spots for all the information required to be in reports. I explained to Mr. Alling that the form has a spot for start date of the investigation and that it would be good to include start time to demonstrate that the 48-hour requirement is met. Ray-Carroll requires incident investigation reports to be kept for 5 years. The policy requires that the investigation findings and recommendations are promptly addressed and that findings are communicated to affected personnel.

EMERGENCY RESPONSE

The facility is a non-responding stationary source. The LEPC for Ray-Carroll Sumner is Chariton County. The LEPC is active and had a meeting last month. I called the Chariton County LEPC on September 20 and 23, 2024, and was unable to reach them. The facility's emergency action plan details who to call and what information to provide in the event of an emergency.

The primary fire department for Ray-Carroll Sumner is Brunswick, a volunteer department. The facility provides an abbreviated emergency action plan and Tier IIs to the LEPC and fire department. The facility coordinates response with the Brunswick Fire Department annually. Sign-in sheets for the coordination were stored at the Brunswick location. I asked for a copy of the most recent coordination activity. I reviewed and obtained copies of the emergency action plan and abbreviated EAP (Appendix 11).

After the inspection I received documentation of a coordination event at the Brunswick location between Ray-Carroll and Brunswick Fire Department on March 13, 2023. They discussed safety protocols and dangers around grain elevators and fertilizer plants. The document did not discuss the Sumner facility, which is about 30 minutes from the Brunswick location. I asked Mr. Alling if the Sumner location was also discussed during the meeting. He stated that the Sumner location was discussed, but they didn't visit the facility because it is less complex and has fewer chemicals than the Brunswick location. In the future it would be best practice to include a statement indicating if multiple facilities are discussed during a coordination meeting in the documentation. The facility appears to meet all emergency response requirements.

I explained that by December 19, 2024, and annually thereafter the facility must complete emergency response notification exercises and maintain records of each exercise for five years as required by 40 CFR 68.96(a).

MANAGEMENT SYSTEM

Mr. Alling is responsible for the development, implementation, and integration of the risk management plan elements. He tries to lead meetings every February to discuss the RMP. The RMP binder contains a schedule for updating and reviewing material.

RISK MANAGEMENT PLAN

I reviewed Ray-Carroll Sumner's most recent RMP submittal. The RMP was submitted on May 30, 2018. 40 CFR 68.190(b)(1) requires that the RMP is updated at least once every five years from the date of its initial submission or most recent update required by paragraphs (b)(2) through (b)(7) of this section, whichever is later. The RMP should have been resubmitted by May 30, 2023. As of September 26, 2024, Ray-Carroll Sumner has not updated the RMP. The RMP is over one year and 3 months late for an update. I identified the following finding:

3. Ray-Carroll failed to update the RMP every five years as required by 40 CFR 68.190(b)(1).

CLOSING CONFERENCE

To start the closing conference, I passed around the sign-in sheet. I provided the receipt for documents form and explained that it included documents I took copies of during the inspection and documents that I requested a copy of by September 10, 2024, two weeks after the inspection. I signed the form and then Mr. Alling signed it. I provided the CBI form. The facility claimed nothing as CBI and signed the form. I explained the timeline for receiving the inspection report. I discussed the findings with the facility and signed the form then Mr. Alling signed the form. I explained that any corrections within the next 30 days would be reflected in the inspection report. We left the facility at 2:30 pm.

FOLLOW UP

After the inspection, Ray-Carroll added more barriers around the tank on September 16, 2024. It appears that there are no barriers around the back of the tank. Photos are stored in the facility site file.

The manifolds for the PRVs were not functional, so Ray-Carroll developed a plan to empty the bulk tank into nurse tanks. Once the tank was empty, they planned to replace the manifolds and the PRVs. On September 20, 2024, Ray-Carroll replaced the PRVs on the tank. Photos and email correspondence are stored in the facility site file.

**CHRISTINA
GALLICK**

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GALLICK
Date: 2024.10.04 09:41:58 -05'00'

Christina Gallick
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Hensley, Dave

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Region 7 U.S. Environmental Protection Agency

ATTACHMENTS

- 1 – Inspection Forms
- 2 – Photo Log
- 3 – Hazard Assessment
- 4 – Safety Information
- 5 – Hazard Review
- 6 – Standard Operating Procedures
- 7 – Training
- 8 – Maintenance
- 9 – Compliance Audit
- 10 – Incident Investigation
- 11 – Emergency Planning