



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Fox River Valley Ethanol, LLC

FROM: Matthew Walters
AECAB (MN/OH)

THRU: Brian Dickens, Section Supervisor
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Fox River Valley Ethanol, LLC (FRVE)

Facility Location: 4995 State Road 91, Oshkosh, WI 54904

Date of Inspection: December 4, 2024

EPA Inspector(s):

1. Matthew Walters, Environmental Engineer
2. DeMarkus Hodge, Environmental Engineer

Other Attendees:

1. Janell Tatro, EHS Manager, FRVE
2. Brad Haase, CO₂ Specialist, FRVE (tour only)
3. Tracy Gosewehr, EHS Specialist, FRVE (tour only)
4. Ben Potratz, Facilities Engineer, FRVE (tour only)

Contact Email Address: jtatro@frvethanol.com, agibson@frvethanol.com

Purpose of Inspection: Aqueous ammonia, denaturant, and ammonia refrigeration process inspection

Facility Type: Ethanol Plant

Facility Name: Fox River Valley Ethanol, LLC

Facility Location: Oshkosh, WI

Date of Inspection: December 4, 2024

Statutes and Regulations Central to Inspection: General Duty Clause at CAA Section 112(r)(1) and Chemical Accident Prevention Provisions at 40 C.F.R. Part 68.

Arrival Time: 8:30 a.m.

Departure Time: 11:15 a.m.

Inspection Type:

- ☐ Unannounced Inspection
- ☒ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet (via email)
- ☒ Provided CBI warning to facility

Was any information collected during the inspection claimed as CBI?

☐ Yes ☒ No.

The following information was obtained verbally from Janell Tatro unless otherwise noted.

Process Description:

The facility is a corn processing plant that produces wet ethanol, corn oil, corn syrup, distillers grains, and CO₂ through batch process operations. The facility has two RMP covered processes. The first is the aqueous ammonia process where ammonia is used for pH adjustment of the front-end ground corn slurry. The second is the denaturant process where denaturant (flammable liquid) is added to the ethanol product. Both denaturant and aqueous ammonia are delivered to the facility via tanker truck (~3x per week for denaturant and ~1x per year for aqueous ammonia). Denaturant is unloaded into one of two storage tanks in the tank farm and subsequently blended with ethanol. There is one denatured ethanol storage tank for the blended product. FRVE is currently undertaking a project to blend the denaturant at the truck load out and eliminate denatured ethanol storage.

The facility also operates an anhydrous ammonia refrigeration process for CO₂ production. The process contains approximately 6,400 pounds of ammonia, which is below the 10,000 pound threshold for Risk Management Program Coverage listed at 40 C.F.R. § 68.130.

Staff Interview: FRVE experienced a release of anhydrous ammonia from the refrigeration system on September 19, 2024. The process was shut down for a heat exchanger replacement project at the time of the release. The section of piping leading to the heat exchanger had been locked out in anticipation of the project but not drained of anhydrous ammonia. Due to a miscommunication and a project contractor being ahead of schedule, the contractor attempted to perform a line break before the section of piping was drained. This resulted in a release of approximately 70 pounds of ammonia. FRVE updated its line break permit as a result of the incident. FRVE reported the release to the

National Response Center (NRC) but redacted the NRC report once it had determined the release was under 100 pounds.

RECORDS REVIEW

Process Hazard Analysis (PHA) and Compliance Auditing

- FRVE tracks PHA and Risk Management Program compliance audit findings through spreadsheets. A responsible person is assigned to complete action items, and the EHS Manager tracks completion status.
- 40 C.F.R. § 68.67(e) requires the owner or operator to establish a system to promptly address the PHA team's findings and recommendations, assure that the recommendations are resolved in a timely manner, and assure that the resolution is documented.
 - Inspectors reviewed the tracking spreadsheet generated by FRVE's 2023 PHA findings and observed that all action items had been marked as completed.
- 40 C.F.R. § 68.79(d) requires the owner or operator to promptly determine and document an appropriate response to each of the findings of the 3-year Risk Management Program compliance audit, and document that deficiencies have been corrected.
 - Inspectors reviewed the tracking spreadsheet generated by FRVE's 2024 Compliance Audit and found that 12 of 14 action items had been marked as complete.
 - One of the outstanding action items relates to the installation of an employee alarm system. The assigned due date is June 30, 2025. FRVE currently uses a plant radio system for emergency communication. During the facility tour, FRVE operators informed Inspectors that plant personnel have access to radios and that the plant always uses one radio channel.
 - The other outstanding action item relates to the inspection of piping systems and is discussed in the Mechanical Integrity section, below. The assigned due date for this item is March 31, 2025.

Mechanical Integrity

- 40 C.F.R. § 68.73(d) requires inspections and tests to be performed on process equipment and the owner or operator to document each inspection and test.
 - FRVE uses a computerized maintenance management system (CMMS) to generate work orders for routine inspection, testing, and maintenance tasks.
 - Storage Tanks:
 - All storage tanks at the facility are atmospheric.
 - FRVE follows API 653 as recognized and generally accepted good engineering practice (RAGAGEP) for inspection and testing of atmospheric storage tanks.
 - Inspectors requested API 653 inspection documentation for offsite review.
 - Piping Systems:
 - FRVE follows API 570 as RAGAGEP for inspection and testing of piping systems.
 - In 2018, FRVE retained a contractor to develop piping isometrics, identify condition monitoring locations, perform an inspection in accordance with API

570, input and maintain the inspection data in a data management software program, and provide FRVE with inspection reports.

- During the 2024 compliance audit discussed above, FRVE determined it did not have records from the 2018 API 570 inspection and subsequently requested those records from its contractor.
- Inspectors reviewed a letter provided to FRVE by the contractor stating that the contractor had lost the API 570 inspection data due to the corruption of a server. The contractor proposed redoing the inspection by the end of 2024.
- Inspectors requested that FRVE notify the EPA when the contractor returns to redo the API 570 inspection. FRVE subsequently informed the EPA that the contractor began the onsite API 570 inspection on December 11, 2024.

Training

- 40 C.F.R. § 68.71 requires employees to be trained in an overview of the process and in the operating procedures. Refresher training must be provided at least every 3 years.
 - Inspectors reviewed the list of modules for FRVE's initial operating training program. Operators are tested on these modules at the end of the training.
 - Inspectors reviewed two training modules that covered chemical feed (which includes aqueous ammonia) and ethanol storage (which includes denaturant handling).
 - Inspectors requested employee training records for offsite review.

Emergency Response

- FRVE relies on the Utica Fire Department for emergency response. UFD would call for mutual aid from the City of Oshkosh for large incidents.
- 40 C.F.R. § 68.93 requires a stationary source to coordinate response needs with local emergency planning and response organizations annually and to document that coordination.
 - UFD does annual walkthroughs of the facility. The documentation of the walkthroughs is limited to sign-in sheets.
 - The facility's Emergency Action Plan, which is provided to the county and LEPC, was requested for offsite review.

TOUR INFORMATION

EPA Toured the Facility: Yes

Data Collected and Observations:

40 C.F.R. § 68.65(d) requires the owner or operator to complete a written compilation of information pertaining to the equipment in the process, including piping and instrumentation diagrams (P&IDs). Inspectors performed P&ID field verification as described below:

- *Denaturant Process*
FRVE provided a P&ID without a title block showing tanks TK-6101 through TK-6106. Inspectors traced denaturant piping from the denaturant truck unloading station to the denaturant

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storage tanks (TK-6102 and TK-6103) and found the P&ID to be accurate, except for the one small diameter drain line noted in the compliance assistance section below. Inspectors also traced the outlet piping from the denaturant storage tanks and found inconsistencies at the piping around pump PC-6105B. The Facilities Engineer indicated that FRVE was actively modifying the piping as part of the truck load out denaturant blending project. Inspectors requested management of change documentation related to these process modifications for offsite review.

- *Aqueous Ammonia Process*

FRVE provided P&ID Drawing Nos. 116-PI-7702 and 116-PI-2101 showing the ammonia tank (TK-7704) and slurry mix tank (TK-2101). Inspectors traced the aqueous ammonia piping from the ammonia unloading line to the slurry mix tank and found the P&IDs to be accurate.

40 C.F.R. § 68.69(b) requires operating procedures to be readily accessible to employees who work in or maintain a process. Inspectors observed that control room operators had access to procedures both electronically and through hard-copy backups.

Photos and/or Videos: were not taken during the inspection.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Letter from contractor explaining the loss of API 570 inspection data
- Following inspection and testing records:
 - Most recent API 653 inspection for Tank TK-6103
 - CMMS work orders for hi-hi level switch on Tank TK-7704 (LSHH-77137) for past 3 years
- Operator training PowerPoints for chemical feed and ethanol storage
- Training record for one operator with 5+ years of experience, including initial training and refresher training
- Executed line break permit from 9/19/2024 anhydrous ammonia incident
- Site emergency action plan
- MOC documentation for current project to blend denaturant at truck loading station

Compliance Assistance: Inspectors noted that a small diameter drain line on the denaturant feed piping to TK-6103 (immediately upstream of the 3"x4" reducer) was not shown on the P&ID.

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DIGITAL SIGNATURES

Report Author:

**MATTHEW
WALTERS**

 Digitally signed by MATTHEW
WALTERS
Date: 2025.01.13 10:06:12 -06'00'

Section Supervisor:

BRIAN DICKENS

 Digitally signed by BRIAN
DICKENS
Date: 2025.01.13 12:06:57 -06'00'