



REGION 5
CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Marysville ethanol, LLC

FROM: Manojkumar P. Patel, Environmental Engineer
AECAB (MI/WI)

THRU: Sarah Marshall, Section Supervisor
AECAB (MI/WI)

TO: File

BASIC INFORMATION

Facility Name: Marysville Ethanol LLC

Facility Location: 2512 Busha Hwy, Marysville, Michigan 48040

Date of Inspection: October 19 and 20, 2023

EPA Inspector(s):

1. Manojkumar P. Patel, Environmental Engineer

Other Attendees:

1. Aric Metevia, Plant Manager

Contact Email Address: ametevia@marysvilleethanol.com

Purpose of Inspection: Compliance with the Prevention of Accidental Releases found in Section 112(r) of the Clean Air Act (CAA), 42 U.S.C. § 7412(r)

Facility Type: Ethanol Manufacturing Operations with natural gasoline (Flammable Mixture)

Regulations Central to Inspection: The Chemical Accident Prevention Provisions at 40 C.F.R. Part 68, commonly referred to as the Risk Management Program

Arrival Time: October 19, 2023 at 9:40 AM EST; October 20, 2023 at 8:15 AM EST

Departure Time: October 19, 2023 at 3:00 PM EST; October 20, 2023 at 12:45 PM EST

Inspection Type:

- ☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
☒ Stated authority and purpose of inspection
☒ Provided Small Business Resource Information Sheet
☐ Small Business Resource Information Sheet not provided. Reason:
☒ Provided CBI warning to facility

The following information was obtained verbally from the facility personnel unless otherwise noted.

Process Description:

Marysville Ethanol, LLC (the facility) operates 24 hours a day, 7 days a week, and employs about 21 full-time employees. The facility performs the following operations: grain receiving, hammer milling, fermentation, distillation, dehydration and evaporation, separation, wet and dry distillers' grain and solubles (WDGS/DDGS) drying, corn oil separation, and ethanol storage.

The facility has one (1) natural gasoline storage tank with 165,000 gallons capacity and it is located in the tank farm area. The natural gasoline is used to denature the ethanol in the tank farm area. Natural gasoline is a flammable mixture. The four constituents of natural gasoline are butane, pentane, neo-pentane (or 2,2- dimethylpropane), and iso-pentane (or 2-methylbutane). The four constituents are part of the Risk Management Plan (RMP) requirements. Butane makes up 0.806% of the natural gasoline, pentane makes up 24.518%, neo-pentane makes up 0.237%, and iso-pentane makes up about 22.96%.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

The following observations were made during the records review process:

Risk Management Program Applicability

The facility describes its operations as under the North Industrial Classification Standards (NAICS) code 325193 (Ethyl Alcohol Manufacturing). This NAICS code is not listed under the eligible NAICS code under the RMP regulations. However, the covered process meets the Program Level 3 eligibility

requirements because the covered processes are subject to the Occupational Health and Safety Agency (OSHA) Process Safety Management standards at 29 C.F.R. § 1910.119 and it satisfies the requirements at 40 C.F.R. § 68.10(i)(2).

Management System for Implementing Elements of Risk Management Program

EPA requested documentation of the management system for implementing elements of the RMP, as specified in 40 C.F.R. § 68.15(a). The facility provided records of a RMP management system at the time of inspection.

The facility was unable to provide an assigned qualified person or position that has the overall responsibility for the development, implementation, and integration of RMP elements. Also, an organizational chart or similar document was not provided to EPA demonstrating the individual requirements of RMP.

Process Safety Information

The facility provided a block flow diagram for the covered process equipment. The process chemistry and the maximum intended inventory is described in the RMP plan. EPA observed that based on the facility's document, the maximum intended inventory for the denaturant gasoline quantity is inconsistent and needs to be corrected. The facility will provide the safe upper and lower limits for temperatures, pressures, and flows for the covered process equipment for EPA's review. The facility did not evaluate the potential consequences of deviation resulting from the safe upper and lower limits for temperatures, pressures, or flows.

The facility provided an electrical classification layout piping and instrumentation diagrams (PID) to satisfy the requirements under 40 C.F.R. § 68.65(d)(1)(iii). The facility did not provide a relief system design and design basis for the covered equipment.

EPA requested documents related to the safety systems on the covered equipment and the facility stated that it will provide a document that will address the safety system on the covered process equipment. The facility claimed that the ventilation system design requirement does not apply to the facility's covered processes.

EPA was unable to verify the facility's applicable design codes and standards employed as the facility informed EPA that it will upload them at a later time. The facility did not have a material and energy balance for processes (Tanks #8414, #8422, and #8433) as these covered processes were built after June 21, 1999.

Process Hazards Analysis

The facility used the Checklist and Hazards and Operability Study (HAZOP) methods for the latest PHA revalidation. EPA observed that the facility did not update or revalidate the PHA every 5 years to show it is consistent with the current covered process. The facility's latest PHA was performed in 2021 and the previous PHA was performed in 2015.

Operating Procedures

The facility will provide all operating procedures for EPA's review. The facility stated that all operating procedures are readily accessible by employees who are involved in the covered processes. The facility informed EPA during the inspection that the facility did not annually certify (for 2020, 2021, 2022, and 2023) that operating procedures are current and accurate and they were not reviewed to assure the facility's current operating practices.

Training

EPA requested RMP training records for all employees at the facility. Specifically, EPA requested that all records must contain information that each employee understood the training in operating processes and understood the required training, and means used to verify that employee understood the training. All training records were provided and EPA will review training records.

Mechanical Integrity

The facility claims that it has established and developed written procedures to maintain the on-going integrity of the process equipment. EPA requested inspection, calibration, testing records for tank farm equipment, all related transfer pumps, loading and unloading arms, PRVs, and tank level gauges.

The facility provided the Mechanical Integrity (MI) policy and procedures for all covered equipment. EPA did not verify the inspection and the required testing performed on all process equipment. The facility will provide documents demonstrating that it followed recognized and generally accepted good engineering practices (RAGAGEP) for inspections and tests on all covered equipment.

Management of Change

The facility informed EPA that it established and implemented written procedures to manage change to process chemicals, technology, and equipment. EPA reviewed a list of Management of Change (MOC) in the last 5 years and informed the facility to upload all information related to the MOCs. The facility stated that it will upload all information related to MOCs.

Compliance Audits

At the time of the inspection, the facility provided compliance audit reports that had been performed for the facility's RMP covered processes. The facility completed the latest compliance audit (CA) on June 7, 2019. The previous CA was completed on June 24, 2016. The RMP regulations require the facility to certify that it evaluated compliance with RMP regulations at least every three (3) years to verify that the procedures and practices are being followed adequately. Based on two CA reports, the facility did not perform CA in or around June 2022.

EPA observed that several findings in the June 2019 CA report and several corrective deadlines of findings were missed or not reported. EPA did not observe that the facility promptly determined and

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documented an appropriate response to each of the findings of the 2019 CA and documented whether these deficiencies had been corrected.

Employee Participation

The facility informed EPA during the inspection that it developed a written plan of action regarding the implementation of employee participation to access PHA, Operating Procedures, and all related information under RMP regulations.

Contractors

The facility claims that it collects and evaluates information regarding the contract owner or operator's safety performance when it selects a contractor. EPA was unable to verify how the facility evaluates a contractor's periodical performance.

Emergency Response

The facility informed EPA that Walton terminal is not designated as a "responding source" under RMP emergency response program. EPA received a revised Emergency Response Plan dated March 8, 2023.

Photos and/or Videos: were 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:

The facility provided the Requested Documents during CAA RMP Inspection

DIGITAL SIGNATURES

Patel,
Report Author: Manojkumar Digitally signed by Patel,
Manojkumar
Date: 2023.12.01
13:16:39 -06'00'

SARAH
Section Supervisor: MARSHALL Digitally signed by
SARAH MARSHALL
Date: 2023.12.01
13:24:41 -06'00'

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APPENDICES AND ATTACHMENTS

1. Appendix A – Digital Image Log;

Facility Name: Marysville Ethanol LLC
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APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Manojkumar P. Patel	2. Archival Record Location: <u>Inspection Photos</u>
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Image Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	PA200154.JPG	2023:10:20 09:30:20		Tank Farm View
2	PA200155.JPG	2023:10:20 09:31:55		Unloading and Loading Arm
3	PA200156.JPG	2023:10:20 09:32:42		Filter House and Transfer Pump
4	PA200157.JPG	2023:10:20 09:32:54		Loading and Unloading Arm Closer View
5	PA200158.JPG	2023:10:20 09:33:06		Vapor Hose (Yellow)
6	PA200159.JPG	2023:10:20 09:34:19		Pressure Guage
7	PA200160.JPG	2023:10:20 09:35:20		Vapor Valve (Foxborough)
8	PA200161.JPG	2023:10:20 10:52:37		Pump Assembly 56 PSI
9	PA200162.JPG	2023:10:20 10:53:09		Ethanol Filter House
10	PA200163.JPG	2023:10:20 10:53:17		Thermal Relief Valve 150 PSI
11	PA200164.JPG	2023:10:20 10:55:07		Strainer for Ethanol (10 micron)
12	PA200165.JPG	2023:10:20 10:56:02		Denaturant Tank #8414
13	PA200166.JPG	2023:10:20 10:57:27		Varec Automatic Tank Guage Model 2500 / 2557 BB Serial 1468966
14	PA200167.JPG	2023:10:20 10:58:48		Varec Tank Guage 2557 Liquid Level Limit Switch Model 2557 BB
15	PA200168.JPG	2023:10:20 11:00:57		Foxborough Flow Meter Model 83 W-TIHS1155TJA
16	PA200169.JPG	2023:10:20 11:02:49		Fire Safe Valve at Tank 8414
17	PA200170.JPG	2023:10:20 11:04:40		Tank TF 8433
18	PA200171.JPG	2023:10:20 11:04:56		Fire Safe Valves (5)
19	PA200172.JPG	2023:10:20 11:07:00		TF 8433 Mechanical Guage Valve
20	PA200173.JPG	2023:10:20 11:08:34		Ethanol Loadout Pump
21	PA200174.JPG	2023:10:20 11:08:45		Ethanol Loadout Outlet Line (w/Pressure Guage 65 PSI)
22	PA200175.JPG	2023:10:20 11:12:11		TF 8422 (Top - Inlet; Bottom - Outlet to Pump to Loadout Arm)
23	PA200176.JPG	2023:10:20 11:15:36		PC 8422 (PIC info to be sent by the facility)
24	PA200177.JPG	2023:10:20 11:17:50		Loadout Vapor Flare