



REGION 5

CHICAGO, IL 60604

MEMORANDUM

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Adkins Energy, LLC, Lena, Illinois

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

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

TO: File

BASIC INFORMATION

Facility Name: Adkins Energy, LLC

Facility Location: 350 W. Galena Road, Lena, Illinois 61048

Date of Inspection: September 12 and 13, 2024

EPA Inspector(s):

1. Manojkumar P. Patel, Environmental Engineer

Other Attendees:

1. Chris Posey, Regulatory Affairs Director, Adkins Energy, LLC
2. Lee Clark, Environmental Health and Safety Director, Adkins Energy, LLC
3. Michael Young, Senior Project Manager, Adkins Energy, LLC
4. Jason Townsend, General Manager, Adkins Energy, LLC

Contact Email Address: cposey@adkinsenergy.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)

Facility Name: Adkins Energy, LLC
Facility Location: 350 W. Galena Road, Lena, Illinois 61048
Date of Inspection: September 12 and 13, 2024

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: September 12, 2024 (10:25 AM); September 13, 2024 (7:30 AM)

Departure Time: September 12, 2024 (5:30 PM); September 13, 2024 (12:00 PM)

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

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

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

Process Description:

Adkins Energy, LLC (the facility) operates 24 hours a day, 7 days a week, and employs about 41 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 40,614 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.

TOUR INFORMATION

EPA Toured 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

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 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 provided upper and lower operating limits for flow and fill levels at the denaturant tank. EPA needs to review if they are indeed safe operating limits for the facility's operations. The facility was unable to provide the safe upper and lower limits for temperatures, and pressures 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 all covered equipment under the RMP.

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.

EPA was unable to verify the facility's applicable design codes and standards employed as the facility submitted a spreadsheet. The facility did not have a material and energy balance for RMP covered processes 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 updated or revalidated the PHA every 5 years to show it is consistent with the current covered process. The facility's latest PHA was performed in 2022 and the previous PHA was performed in 2017.

Operating Procedures

The facility provided operating procedures for the following operations: (1) Denaturant Storage; (2) Ethanol Loadout Arm; (3) Pre-Post Loading Tank Car Inspection; (4) T-882 Ethanol Loadout Knockout Pot Unloading; and (5) Unloading Denaturant Tank. Its procedures outline the normal operations and the facility claimed that there are no temporary operations and emergency operations. EPA observed that for the Ethanol Loadout Arm SOP, the facility did not provide information on precautions necessary to prevent exposure, including engineering controls, and administrative controls, control measures to be taken if physical contact or airborne exposure occurs, and quality control for raw materials and control of hazardous chemical inventory levels.

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 certified annually that operating procedures are current and accurate, and they 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 on operating processes and can verify that each employee understood the training. All training records were uploaded to the SharePoint folder, and EPA will review the 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 requested that the facility upload all information related to the MOCs to a shared folder provided by EPA.

Compliance Audits

At the time of the inspection, the facility provided compliance audit reports that have been performed for the facility's RMP covered processes. The facility completed the latest compliance audit (CA) on November 16, 2022. The previous CA was completed on December 4, 2019. 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.

EPA observed that several findings in the December 4, 2019, CA report and several corrective deadlines of findings were missed or not reported. EPA did not observe that the facility promptly determined and documented an appropriate response to each of the findings of the 2019 CA and documented whether these deficiencies had been corrected.

EPA reviewed 2022 Audit Findings and Corrective Actions tracking spreadsheet and observed that twenty-two (22) findings with assigned to and due dates. EPA observed, based on review of 2019 and 2022 Audit reports, several 2022 Audit findings are repeat from the 2019 Audit findings. And The facility claimed that it completed twelve (12) findings within the due dates from its 2022 Audit report and nine (9) items are still not completed.

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.

Hot Work Permit

The 2022 CA report stated that the facility did not identify, in the written plan, an individual responsible for authorizing all welding and cutting operations. The facility also did not ensure that welders, cutters, and supervisors are trained in the safe operation of their equipment. The facility has two types of hot work permits (ABC/BC). The permit does not indicate which ones should be used.

Contractors

The facility claims that it collects and evaluates information regarding the contract owner or operator's safety performance when it selects a contractor. The facility was unable to provide records that show that the facility informed contract owners or operators of the known potential fire,

explosion, or toxic release hazards related to contractor's work at the facility. EPA was unable to verify how the facility evaluates a contractor's periodical performance.

Emergency Response

The facility informed EPA that its facility is designated as a "non-responding source" under RMP emergency response program. EPA received a revised Emergency Response Plan dated September 25, 2024.

Photos and/or Videos: were taken during the inspection and are listed in Appendix A.

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

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

Requested documents:

- Denaturant Skid Assembly Process and Instrumentation Diagram (P&ID)
- Ethanol Storage P & ID
- December 3-4, 2019 Compliance Audit Report
- RMP Audit Checklist and Tracking Table November 15 and 16, 2022
- Emergency Response Memorandum of Understanding with Lean Fire Department
- Risk Management Plan update dated February 21, 2021
- Mechanical Integrity Procedures dated April 11, 2024
- Bulk Chemical Offload Checklist
- Protect API 653 External Inspection on Tank T-865 dated September 13, 2023
- MOC ID: 2018-3 dated July 10, 2018
- MOC 2020-1 Ethanol Loadout Arm dated May 6, 2020
- PSSR Checklist for MOC 2018-3
- Incident Investigation Report dated March 1, 2021
- Incident Investigation Report dated July 10, 2019

DIGITAL SIGNATURES

Report Author: MANOJKUMAR PATEL
Digitally signed by MANOJKUMAR PATEL
Date: 2024.11.01 12:41:08 -05'00'

Section Supervisor: SARAH MARSHALL
Digitally signed by SARAH MARSHALL
Date: 2024.11.01 13:36:37 -05'00'

Facility Name: Adkins Energy, LLC
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APPENDICES

1. Appendix A: Digital Image Log and Digital Video Log

Facility Name: Adkins Energy, LLC
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APPENDIX A: DIGITAL IMAGE LOG AND DIGITAL VIDEO LOG

Inspector Name: Manojkumar P. Patel

Archival Record Location: [Adkins Energy LLC RMP](#)

[Inspection Pics](#)

Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	P9130284.JPG	9/13/2024 9:18	Denaturant Tank T 865 Tank View
2	P9130285.JPG	9/13/2024 9:19	T 865 Tank Name Plate Information
3	P9130286.JPG	9/13/2024 9:21	T 865 DNT Pump Assembly
4	P9130287.JPG	9/13/2024 9:22	T 865 Automation Valve (Fire safety Fusible link)
5	P9130288.JPG	9/13/2024 9:28	Gloud Pump Pressure Indicator
6	P9130289.JPG	9/13/2024 9:29	DNT Line Pressure Indicator to Gloud Pump
7	P9130290.JPG	9/13/2024 9:32	Denaturant Tank Level Indicator
8	P9130291.JPG	9/13/2024 9:33	Fire safety Valve with Fusible Link
9	P9130292.JPG	9/13/2024 9:35	Pressure Relief Valve on Recirculation Line
10	P9130293.JPG	9/13/2024 9:38	Flow Meter Indicator
11	P9130294.JPG	9/13/2024 9:40	Flow Controller for the Loading Arm
12	P9130295.JPG	9/13/2024 9:42	T 865 Hazard Communication Label
13	P9130296.JPG	9/13/2024 9:44	New Blend Skid
14	P9130297.JPG	9/13/2024 9:45	New Blend Skid - Name Tag with Differential Pressure Gauge
15	P9130298.JPG	9/13/2024 9:46	Blend Skid PRV (SP @150 PSI) Filter Max 250 PSI
16	P9130299.JPG	9/13/2024 9:50	Blend Skid Metering Device 205 PSI 3750 GPM
17	P9130300.JPG	9/13/2024 9:50	Flow Metering @ 70 PSI
18	P9130301.JPG	9/13/2024 9:53	Flow Metering Pressure Indicator
19	P9130302.JPG	9/13/2024 9:54	Five Block Valve API 65A
20	P9130303.JPG	9/13/2024 9:58	Five Block Valve Air Pressure 65 PSI (use Air)
21	P9130304.JPG	9/13/2024 9:58	Five Block Valve Position (CLOSED)
22	P9130305.JPG	9/13/2024 10:00	2" Line (Denaturant connects to Ethanol)
23	P9130306.JPG	9/13/2024 10:00	2" Line Closer View
24	P9130307.JPG	9/13/2024 10:02	Truck Loading Arm
25	P9130308.JPG	9/13/2024 10:02	3 Way Valve (Directs flow either to Truck Loading or Rail Loading)
26	P9130309.JPG	9/13/2024 10:04	Manual Blocking Valve
27	P9130310.JPG	9/13/2024 10:09	Loading Arm Hose
28	P9130311.JPG	9/13/2024 10:10	Truck Vapor Return Line
29	P9130312.JPG	9/13/2024 10:11	Rail Loading Arm (Green) and Vapor Return (Orange)
30	P9130313.JPG	9/13/2024 10:11	Knockout Tank T882
31	P9130314.JPG	9/13/2024 10:13	Knockout Tank 882 Closer View
32	P9130315.JPG	9/13/2024 10:13	Knockout Tank 882 Vapor line In

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33	P9130316.JPG	9/13/2024 10:13	Knockout Tank 882 Vapor line Out
34	P9130317.JPG	9/13/2024 10:13	Knockout Tank Level Sensor High
35	P9130318.JPG	9/13/2024 10:15	Knockout Tank Level Sensor High High
36	P9130319.JPG	9/13/2024 10:16	Knockout Tank Level Indicator
37	P9130320.JPG	9/13/2024 10:20	Flare Assembly
38	P9130321.JPG	9/13/2024 10:20	Vapor line meets to the Natural Gas Line Tie In
39	P9130322.JPG	9/13/2024 10:21	Flame Arrestor - Safety Device
40	P9130323.JPG	9/13/2024 10:24	Pressure Reducer Valve N.G. (one for Pilot; Other for Main Burner)
41	P9130324.JPG	9/13/2024 10:50	Vapor to Flare
42	P9130325.JPG	9/13/2024 10:52	Denaturant Tank Level Setpoint 85% to 11%
43	P9130326.JPG	9/13/2024 10:53	Truck and Rail Loadouts
44	P9130327.JPG	9/13/2024 10:55	Ethanol Loadout Flare Set Point