UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

SUBJECT:	CLEAN AIR ACT INSPECTION REPORT Grain Processing Corporation, Washington, Indiana
FROM:	Dakota Prentice, Environmental Engineer AECAB (IL/IN)
THRU:	Nathan Frank, Section Supervisor AECAB (IL/IN)
TO:	File

BASIC INFORMATION

Facility Name: Grain Processing Corporation

Facility Location: 1443 South Country Road 300 West, Washington, Indiana

Date of Inspection: April 5, 2022

EPA Inspector(s):
1. Dakota Prentice, Environmental Engineer
2. Victoria Nelson, Environmental Engineer
3. Tess Russell, Environmental Engineer

Other Attendees:
1. Tammy Haug, Senior Environmental Manager – IDEM
2. Wendy Bouvier, Environmental Services Manager – Grain Processing Corporation
3. Shannon Dalton, Production Manager – Grain Processing Corporation
4. John Dudenhoeffer, Plant Manager – Grain Processing Corporation
5. Dylan Madden, Steep Mill Feed Department Superintendent, Grain Processing Corporation

Contact Email Address: Wendy Bouvier – wendy_bouvier@grainprocessing.com

Purpose of Inspection: to determine compliance with the facility's operating permit issued by the Indiana Department of Environmental Management (IDEM)

Facility Type: Corn Wet Mill

Arrival Time: 2:00PM
Departure Time: 5:00PM

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.
☒ Provided CBI warning to facility

The following information was obtained verbally from Grain Processing Corporation (GPC) representatives unless otherwise noted.

Process Description:
The facility is a corn wet mill, which operates by breaking a corn kernel into fiber, germ, gluten, and starch. These components are either dried and sold or further refined or modified to produce other products.

Production begins with the delivery of corn to the facility, which is stored onsite in silos. The corn is then transferred to steeping to start the kernel separation process. At steeping, corn is soaked in water with sodium bisulfite. From steeping, the material moves through a grind mill and then through a series of hydroclones and centrifuges to produce the fiber, germ, gluten (protein), and starch (carbohydrate) streams. The fiber, germ, and gluten streams are dried without significant additional modification and sold as final products. Starch is sent on for additional processing.

The starch stream is used to produce three main categories of products: 1. Industrial starches; 2. Maltodextrin; and 3. Alcohol. At industrial starch production, the starch is modified in one of eight reactors to produce various starch types including acid-modified and oxidized starches which are used for multiple purposes including as a binder or glue. The modified starch is dried and sent to storage prior to shipment. At maltodextrin, the starch is reacted with acid and an enzyme, then dried and packaged for shipment. At alcohol, the starch is used as the feedstock in a batch fermentation process to produce ethanol, a majority of which is classified as beverage alcohol.

Wastewater is treated onsite prior to discharge. The facility operates two anaerobic digesters. Methane gas from the digesters is collected and scrubbed to remove hydrogen disulfide. This biogas is used to fuel the germ and gluten dryers and two RTOs controlling emissions from the wet mill. Excess biogas goes to the Biogas Flare. The Biogas Flare is not steam or air assisted.

Staff Interview: The facility is currently undergoing an expansion to approximately double maltodextrin production capacity. Gluten, fiber, and germ dryers are currently controlled by scrubbers and thermal oxidizers in series. The facility is adding a wet electrostatic precipitator (WESP) in line between the scrubbers and thermal oxidizers to reduce downtime at the thermal oxidizers.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:
EPA toured specific portions of the facility including steeping and ethanol fermentation operations. At ethanol fermentation, the manway hatch at Fermentation Tank No. 3 was audibly and visibly leaking. EPA observed visible emissions from the Biogas Flare.

Photos and/or Videos: were taken during the inspection.
Appendix A – Digital Photo Log
Appendix B – Digital Video Log

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

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

Requested documents:

- The most recent performance test at each scrubber, thermal oxidizer, and WESP at the facility

Compliance Assistance: EPA recommended GPC assess the Biogas Flare operation and determine the cause of visible emissions.

Concerns: EPA noted that the manway at Fermentation Tank No. 3 appeared to be leaking. Additionally, visible emissions at the Biogas Flare demonstrated poor combustion.

DIGITAL SIGNATURES

Report Author: DAKOTA PRENTICE Digitally signed by DAKOTA PRENTICE Date: 2022.05.03 10:31:32 -05'00'

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan Date: 2022.05.04 16:04:50 -05'00'

APPENDICES AND ATTACHMENTS

Appendix A – Digital Photo Log
Appendix B – Digital Video Log

Facility Name: Grain Processing Corporation
Facility Location: 1443 South Country Road 300 West, Washington, Indiana
Date of Inspection: April 5, 2022

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: D. Prentice	**2. Archival Record Location:** Region 5 Electronic Records Center

Image Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	IMG_0031.JPG	2022:04:05 13:17:46	Not Available	Steep Tank
2	IMG_0032.JPG	2022:04:05 13:30:34	Not Available	Steephouse Scrubber Stack
3	IMG_0033.JPG	2022:04:05 13:34:01	Not Available	Millhouse Scrubber (right), Feedhouse Scrubber (left), Thermal Oxidizer (right background)
4	IMG_0034.JPG	2022:04:05 13:47:43	Not Available	Fiber Transfer Conveyer
5	IMG_0035.JPG	2022:04:05 14:11:17	Not Available	Fermentation Tanks
6	IMG_0036.JPG	2022:04:05 14:20:25	Not Available	Fermentation Tank No. 3 Manway
7	IMG_0037.JPG	2022:04:05 14:30:58	Not Available	Biogas Flare

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APPENDIX B: DIGITAL VIDEO LOG

1. **Inspector Name:** T. Russell (Numbers 1-13); D. Prentice (Number 14)	2. **Archival Record Location:** Region 5 Electronic Records Center

Video Number	File Name	Date and Time (incl. Time zone and DST)	Latitude and Longitude	Description of Image
1	MOV_2630.mp4	4/5/2022	Not Available	Steep Tank #1
2	MOV_2631.mp4	4/5/2022	Not Available	Steeping Scrubber Stack
3	MOV_2632.mp4	4/5/2022	Not Available	Millhouse Scrubber Stack
4	MOV_2633.mp4	4/5/2022	Not Available	Feedhouse Scrubber Stack with RTO Stack in background
5	MOV_2634.mp4	4/5/2022	Not Available	RTO Stack
6	MOV_2635.mp4	4/5/2022	Not Available	Feedhouse Scrubber Stack, alternate perspective
7	MOV_2636.mp4	4/5/2022	Not Available	Outdoor roof vent
8	MOV_2637.mp4	4/5/2022	Not Available	Fiber Line Conveyor before and after steepwater "syrup" addition from evaporator and condenser
9	MOV_2638.mp4	4/5/2022	Not Available	Fiber Line Conveyor before and after steepwater "syrup" addition from evaporator and condenser
10	MOV_2639.mp4	4/5/2022	Not Available	Fiber Line Conveyor before steepwater "syrup" addition
11	MOV_2640.mp4	4/5/2022	Not Available	RTO Stack near the Ethanol Plant
12	MOV_2641.mp4	4/5/2022	Not Available	Manway on Fermenter #3
13	MOV_2642.mp4	4/5/2022	Not Available	Manway on Fermenter #3
14	MVI_0038.MP4	4/5/2022	Not Available	Biogas Flare