



United States Environmental Protection Agency
Region 7
Enforcement and Compliance Assurance Division

Air Branch

**Air Branch Inspection Report
Unannounced Full Compliance Evaluation**

AG Processing, Inc.
2801 E 7th Street
Hastings, NE 68901
FRS# 110000448472

Inspection Date:
January 29 - 31, 2024

Sean Bergin, Inspector, ECAD, Air Branch

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and provides a clear indication of the end of this report.**

INSPECTION OVERVIEW

INSPECTION OBJECTIVE

The objective of the full compliance evaluation (FCE) inspection was to determine compliance of the facility with the Clean Air Act (CAA), specifically those requirements listed in Table 3 below. The inspection was part of the U.S. Environmental Protection Agency's (EPA) Creating Cleaner Air for Communities National Enforcement Compliance Initiative.

The inspection was a multimedia inspection for the Clean Air Act and EPCRA 313 programs. This report is focused on the inspection observations and potential findings related to the Clean Air Act. The inspection observations and findings related to the EPCRA 313 inspection are provided in a separate report. This inspection was conducted by Sean Bergin, EPA Region 7, Enforcement and Compliance Assurance Division, Air Branch.

Table 1 lists the inspection team members.

Table 1. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
Lead Inspector Sean Bergin	EPA, Region 7, ECAD, Air Branch	Inspector
Kyle Youngs	EPA, Region 7, ECAD	Field team member
Tony Leapley	Nebraska Department of Environment and Energy	Inspector

FACILITY CONTACT INFORMATION

Table 2 lists the primary facility contacts.

Table 2. FACILITY CONTACT INFORMATION		
Name, Title	Phone No.	Email Address
Shannon Adler	402.460.4450	sadler@agp.com
Kelly Jorgensen	402.496.7809	kjorgensen@agp.com
Jeff Lampman	402.496.7809	klampman@agp.com
Dan Dunham	402.496.7809	ddunham@agp.com

FACILITY OVERVIEW

AG Processing, Inc. (AGP) produces soybean oil. The permit application to construct a soybean processing plant and refinery was submitted to Nebraska Department of Environment and Energy (NDEE) on November 19, 1997. The Subpart GGGG Initial Notification for Existing Sources was submitted to NDEE on August 6, 2001. AG Processing operates 24-hours per day and employs 141 people.

According to the AGP Title V operating permit, issued by the NDEE on October 4, 2019, the facility is subject to the following regulations and standards subject to review during this inspection (**Table 3**):

Table 3. APPLICABLE PERMIT CONDITIONS, REGULATIONS AND STANDARDS	
Code of Federal Regulation	Standard Name
40 CFR Part 60	Subpart: A, General Provisions; Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units; Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units; Subpart DD, Standards of Performance for Grain Elevators; Subpart Y, Standards of Performance for Coal Preparation and Processing Plants; Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
40 CFR Part 63	Subpart A, General Provisions; Subpart GGGG, National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production; Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines; and Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

The Title V permit was reopened for cause on July 15, 2020, to correct the recordkeeping AGP requirements on the baghouses and on Boilers #1 and #2. Minor revisions to the permit were issued on December 31, 2020, and a significant revision was issued on March 26, 2021.

The last onsite compliance monitoring activity at the facility was on March 16, 2023, and consisted of a FCE inspection conducted by the NDEE. NDEE completed a Title V certification review on February 03, 2023.

NDEE issued AGP a Notice of Non-Compliance (NON) on January 28, 2019, with an addendum to the NON issued on February 11, 2019, for a failed performance test on the grain dryer EP 220. A follow-up performance test was conducted on February 12, 2019, with results within permitted limits.

NDEE issued an NON on April 25, 2023, for a failed performance test conducted on the coal-fired boiler EP 440. The boiler was retested on May 10, 2023, and passed.

NDEE issued a NON on August 28, 2023, for a failed performance test conducted on May 3, 2023, on the grain dryer EP 220. EP 220 was retested on September 12, 2023, and passed.

The most recent AGP Title V Annual Compliance Certification, received by the NDEE on February 3, 2023, noted intermittent compliance of the oil extraction process due to an exceedance of the 492-ton volatile organic compound (VOC) limit for EP 116 (Oil Extraction Process) from July through November 2022.

The most recent (March 16, 2023) NDEE FCE inspection report noted that the emergency engine and fire pump records are maintained, but monthly logs were not maintained until September 2021.

FACILITY OPERATIONS SUMMARY

Soybeans are received by truck and rail, unloaded into receiving pits, and conveyed to the receiving elevators. Soybeans are transferred to the grain dryer, where steam from the boilers is used to dry the beans and are then transferred to storage silos for tempering and storage. From the storage silos, soybeans are then conveyed for cracking, cleaning, and dehulling. Grinders are used to grind the hulls for preparation as livestock feed. Secondary dehulling is performed with steam which also conditions the beans for flaking. Once flaked, the beans are passed through flattening rolls prior to oil extraction which is achieved with hexane. Following oil extraction, the hexane is removed from the spent flakes with heat and steam. The spent flakes are dried for grinding and preparation as livestock feed. The oil hexane mixture is distilled with steam to vaporize the hexane, which is captured and condensed for reuse. The oil is further refined at the refinery located just east of the oil extraction facility.

The installation is a major source. Actual emissions of VOCs and hazardous air pollutants (HAPs) are above the major source threshold.

A schematic diagram of the facility can be found in **Appendix A**.

FIELD ACTIVITIES SUMMARY

Mr. Youngs and I arrived at the facility the afternoon of January 29, 2024, completed a drive-by surveillance inspection. We did not observe visible emissions or unusual activity during the drive-by surveillance. On January 30, 2024, at approximately 7:35 a.m., Mr. Youngs and I made entry at the front gate of AGP and were directed to the administration building. Shortly after entering the administration building, we were met by Mr. Alder. I introduced myself and Mr. Youngs to Mr. Alder and I presented my credentials and provided my business card. Mr. Leapley arrived after the introductions, having been held up by road conditions. I conducted an opening conference during which I explained that the purpose of the visit was to conduct an inspection to determine compliance with the CAA, specifically, to determine compliance with the regulations and standards listed in Table 3. I explained that after asking for some general business information, I would observe work practices, process units, emission units, control equipment, and review associated records demonstrating compliance with the permit and regulations. I explained to Mr. Alder that the facility could make a claim of business confidentiality for any information I collect and that a receipt for records collected during the inspection would be provided.

Mr. Alder called Messrs. Jorgensen and Lampman in Omaha and explained that we were conducting an inspection. Mr. Alder told Messrs. Jorgenson and Lampman that I had brought a forward looking infra-red (FLIR) camera and a Photoionization device (PID) to use during the

inspection. I was asked why I wanted to use the equipment, and I explained that I wanted to use the FLIR to visually track emissions from the facility and the PID to collect any background levels of VOCs. I was denied the use of the equipment onsite. I also explained that I brought a field camera for photographs of equipment and was told that if I needed a photograph of equipment, Mr. Alder could take the photographs for me. I was denied use of my camera on site; no photographs were taken during the inspection.

We began discussing the operating permit and regulations, and Mr. Alder told us that AGP's required records are kept in the Production Office. Prior to moving to the Production Office to review records, we were given a safety briefing by Mr. Alder. Required personal protective equipment for the walk to the Production Office during the tour consisted of steel toed boots, hard hat, safety glasses, and a safety vest.

At the Production Office, we reviewed the most recent three years of all required daily visible emissions surveys of equipment and AGP's pressure drop logs. We reviewed equipment maintenance procedures and records and discussed the operating permit.

Mr. Alder led us on a facility tour through the grain storage, cleaning, drying, and preparation areas, and extraction buildings.

We broke for lunch at approximately 1:15 p.m. and returned to the facility at approximately 2:00 p.m.

Following lunch, I finished discussing permit conditions with Mr. Alder, and we checked the hour meters of the fire pump (EU 208) and emergency generator (EU 211). Mr. Alder provided information on cooling water testing.

I conducted a closing conference with Messrs. Adler, Jorgensen, Lampman, Dunham, and the inspection team. We discussed the information that we had reviewed onsite and the records that we had requested from AGP. I did not provide a Receipt for Documents during the closing conference because the facility representatives and I had agreed that I would provide the Receipt for Documents, as well as the Confidential Business Information form, when I sent the secure link for the information requested. We departed the facility at approximately 4:00 p.m.

Following the inspection, Mr. Youngs and I took FLIR images of the facility from the public right of way on the east of the facility towards the refinery and on the north side of the facility towards the refinery and north extraction area.

The following morning, January 31, 2024, Mr. Youngs and I used the Data Acquisition in Real Time (DART) equipment to detect volatile organic compounds in the public right of way north and east of AGP.

On February 5, 2024, I emailed Mr. Alder a Receipt for Documents, Confidential Business Information form, a list of requested documents and a link for transfer of requested documents. The signed Receipt for Documents and the Confidential Business Information forms can be found in **Appendix B**.¹ The list of requested information can be found in **Appendix C**). The requested documents were received on February 27, 2024.

Observations and potential findings from the facility tour, records review, and sampling/measurement activities are noted in the Investigation Observation and Potential Findings section below.

Measurement and/or Sampling Activities

I used a FLIR camera to observe the facility from the north and east sides of the facility property from the public right of way. I used the DART to observe ambient VOC concentrations from the public right of way north and east of AGP. **Table 4** summarizes field measurement and field sampling activities.

All environmental measurement activities were performed in accordance with the EPA Region 7 quality system. I followed the manufacturers and EPA's processes for instrument calibration. Instrument calibration was documented in the instrument's logbook.

Table 4 summarizes field measurement activities.

Table 4. FIELD MEASUREMENT ACTIVITIES			
Location Identifier	Date(s) and Time	Method and/or Procedure ¹ , and Equipment	Measurer Name
East 12 th Street. North Blaine Avenue	January 30, 2024. Approximately 4:15 -5:15 p.m.	Region 7 procedure, FLIR GF320 Equipment: Teledyne, GF320, Serial No. 44402263	Bergin
East 12 th Street. North Blaine Avenue	January 31, 2024. Approximately 7:15-7:30 and 8:15 to 8:30 a.m.	EPA procedure, ERG DART Operation Manual Equipment: DART	Bergin/Youngs
¹ The current version of each procedure, at the time of the investigation, was followed.			

¹ Mr. Jorgensen signed the CBI form noting the company did not wish to make a claim of business confidentiality. Mr. Jorgensen included a note on the form that all of the files submitted to the EPA already had CBI redacted while also asserting that the redacted information was not required for the EPA to make a compliance determination. The EPA has not validated Mr. Jorgenson's assertions about its need of the redacted information.

INVESTIGATION OBSERVATIONS AND POTENTIAL FINDINGS

Ambient weather, site conditions, and activities were documented in the field records. I made the following observations during the inspection. I discussed all observations with facility representatives during the closeout meeting unless otherwise noted in the observation description.

These observations are not final compliance determinations. The EPA Region 7 Air Branch case review team will make the final compliance determinations based on its review of this report and other technical, regulatory, and facility information.

Visible emissions survey logs and pressure drop logs from 2021 through 2023 were reviewed with no issues found. Emergency engine and fire pump records are maintained, but monthly logs were not maintained until September 2021, as noted in the 2023 NDEE inspection report.

Equipment maintenance is based on the manufacturer's recommendations. I asked Mr. Alder if AGP had prepared Standard Operating Procedures (SOP), and he told me that the facility is in the process of writing SOPs for all equipment based on the manufacturer's recommendations. Some preventative maintenance work orders were reviewed onsite. Equipment number, date of maintenance conducted, a description of activity, and operator's initials are included on work orders. Mr. Alder told me that preventative maintenance is conducted on the equipment every six months, at which time baghouse and cyclones filters are changed and baghouse bag replacement is conducted. During annual outages, all equipment filters are changed. Otherwise, filters are changed, and other maintenance activities are conducted as needed. Smaller baghouses can be shut down for maintenance when necessary.

I asked Mr. Alder if the facility had experienced any problems with low oil soybeans and meeting the solvent ratio requirements of 40 CFR Part 63, Subpart GGGG. Mr. Alder said that is not a concern at this facility because AGP has lots of storage capacity. Any shipments received of low oil soybeans are mixed in with higher oil beans prior to extraction, and the solvent ratio requirements are not affected.

Performance test information was reviewed prior to the inspection. At the time of the inspection, all required performance testing had been conducted and passed.

Facility modifications have occurred. Facility startup after a modification at an existing source occurred on October 3, 2016. The Startup, Shutdown and Malfunction Plan was written in November 2016. The Plan for Demonstrating Compliance was written on November 25, 2016.

The AGP coal-fired boiler EP 401 is subject to 40 CFR Part 60, Subpart Db. AGP demonstrates compliance with carbon monoxide (CO), nitrogen oxide (NO_x) and sulfur dioxide (SO₂) standards by using a Continuous Emissions Monitoring System (CEMS). AGP demonstrates compliance with the Subpart Db opacity standard by using a Continuous Opacity Monitoring System (COMS). All testing required by Subpart Db is complete. I reviewed the CEMS reports submitted by AGP to the NDEE and observed some deviations of the SO₂ standard. Deviations of the SO₂ standard did not occur more than 5% of the total operating time.

AGP has six boilers subject to 40 CFR Part 63, Subpart DDDDD: EP 401, EP 117, EP118, EP 18A, EP 18B, and EP 137. All are existing sources. EP 401 is subject to emission limits and demonstrates compliance with CO, NO_x, and SO₂ standards and the opacity standard by using a COMS. Required tune-ups are conducted every five years. Performance tests of EP 401 have been conducted every three years. Four performance tests have been conducted to date: March 2016, March 2017, February 2020, and February 2023. Emissions from EP 401 have been less than 75% of the limits for HCl, Mercury, and total selected metals. The other boilers primarily combust natural gas and are not subject to emissions limits. Boiler fuel records are kept.

Boilers EP 117, EP 118, and EP 137 are subject to the limits of 40 CFR Part 60, Subpart Dc. Boilers EP 118 and EP 137 combust natural gas only and are not subject to the SO₂ standard or the PM standard. EP 117 can combust distillate, residual, or soybean oil and is subject to a permitted fuel sulfur content limit of 0.25% and the PM standard when combusting fuel oils. Required testing has been completed.

AGP has two oil extraction processes that are subject to the requirements of 40 CFR Part 63, Subpart GGGG. AGP is required to calculate a compliance ratio comparing actual HAP loss to allowable HAP loss on a monthly basis and for the previous 12 operating months. A calculated compliance ratio of 1.00 or less demonstrates that the facility is in compliance with the HAP emission requirements. I reviewed the monthly and 12-month rolling calculations for the years 2019 through 2023 and found no deviations. The compliance ratio was less than 1.00 for the five-year period.

AGP operates a grain terminal elevator that has a permanent storage capacity of greater than 2.5 million bushels of soybeans and is subject to the requirements of 40 CFR Part 60, Subpart DD. The facility's rail loading and unloading, as well as truck unloading, operations are subject to the rule. AGP does not conduct truck loading operations. Rail loading, rail unloading, and truck unloading operations are subject to a 5% opacity limit. Bean handling operations are subject to a 0% opacity limit. Initial performance testing has been conducted and passed.

Required visual emissions surveys are conducted with no issues found. I did not observe opacity issues at the time of the inspection.

The AGP coal handling equipment processes more than 200 tons of coal per day, was constructed in 2008, and is subject to 40 CFR Part 60, Subpart Y. Performance testing has been conducted and passed. The processing, conveying, storage, transfer, and loading systems are subject to a 20% opacity limit. Visual emissions surveys are required. I reviewed the visual emission logs at the time of the inspection. The visual emission surveys are conducted, and exceedances were not found in the surveys that I reviewed. I did not observe any opacity issues at the time of the inspection.

Following the inspection, the facility was observed offsite with a FLIR camera from the public right of way from the north and east sides of the facility. An assessment of these images had not been conducted prior to report transmittal.

A DART was used twice on January 31, 2024, to detect ambient VOCs north and east of the facility, at approximately 7:15 a.m. and again at approximately 8:15 a.m. During the first pass starting at approximately 7:15 a.m., ambient VOC levels were elevated above background north of the north extraction building and north of the refinery. During the second pass, elevated (above background) ambient VOC readings were measured east of the refinery and directly north of the refinery. DART VOC measurement had not been quality assured prior to report transmittal.

A Notice of Potential Findings was not issued at the time of the inspection.

End of report.