

REPORT OF COMPLIANCE SAMPLING INSPECTION (CSI)

AT
Eagle Grove Wastewater Treatment Facility (WWTF)
Eagle Grove, IA 50533

NPDES NO: IA-0034380

October 16-19, 2023

BY
U. S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement and Compliance Assurance Division (ECAD)

INTRODUCTION

I performed a Compliance Sampling Inspection (CSI) at the Eagle Grove WWTF in Eagle Grove, Iowa from October 16, 2023, through October 19, 2023. The inspection was authorized by Section 308(a) of the Federal Water Pollution Control Act, as amended. This narrative report presents the findings of the inspection.

PARTICIPANTS

Eagle Grove WWTF

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Jessie, Salinas, Operator

Prestage Foods (Only during the Prestage Foods portion of the inspection)

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DayBreak Foods (Only during the DayBreak Egg Breaker Portion of the inspection)

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Ag Processing Inc. (was not present during inspection)

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Iowa Department of Natural Resources

Jake Donaghy, Environmental Specialist (present for Prestage Foods only)

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PROCEDURES

On October 16, 2023, I arrived at the Eagle Grove WWTF at 12:00 p.m. and introduced myself to Mr. Brockman, presented my credentials, and explained the purpose and procedures of the inspection. These procedures included completing the Water Compliance Inspection Report (attachment 1), an EPA Region 7 Biosolids Checklist (attachment 2), a facility walk-through with photos (attachment 3), a check of the self-monitoring records, the collection of influent, effluent and biosolids samples, and an exit interview. I also collected samples at Prestage Foods, Daybreak Foods, and Ag Processing Inc., which are all listed as significant industrial users on the Eagle Grove National Pollution Discharge Elimination System (NPDES) permit.

From October 16, 2023, through October 19, 2023, I split influent and effluent samples of the WWTF with the city utilizing the city's composite sampler. Sample aliquots were taken every 15 minutes and collected into a clean Nalgene bottle, which was refrigerated. City staff serviced the sampler each day. I observed the collection of the samples on October 17 and 18, 2023, while city staff collected the samples on October 19, unobserved. Each day the sample bottles were brought to the WWTF laboratory, I agitated its contents, and poured them into clean, pre-labeled containers for the analysis of Carbonaceous Biochemical Oxygen Demand (CBOD), Non-Filterable Solids (NFS), Ammonia, Total Kjeldahl Nitrogen (TKN), Nitrate+Nitrite, Total Nitrogen (by calculation), Total Phosphorus (TP). I recorded the pH, temperature, and flow that the city measured each day while the sample bottle was collected from the sampler.

From October 17, 2023, through October 19, 2023, I split effluent samples with the city of the process wastewater discharge from Prestage Foods, utilizing a composite sampler that Prestage Foods owns, however the city operates. Sample aliquots were taken every 15 minutes and collected into a clean Nalgene bottle, which was refrigerated. City staff along with staff of Prestage Foods serviced the sampler each day. I observed the collection of the samples on October 18 and 19, 2023. Each day the sample bottles were brought to the WWTF laboratory, I agitated its contents, and poured them into clean, pre-labeled containers for the analysis of Biochemical Oxygen Demand (BOD), NFS, TKN, TN, TP. Grab samples were taken each day for the analysis of Oil and Grease (O&G). I recorded the pH, temperature, and flow that the city measured each day while the sample bottle was collected from the sampler.

From October 18, 2023, through October 19, 2023, I split effluent samples with the city of the process wastewater discharged from the DayBreak Foods egg breaking facility and their farm site, utilizing a composite samplers owned and operated by Daybreak Foods. Sample aliquots were taken every 15 minutes and collected into a clean Nalgene bottle, which was refrigerated. I observed the collection of the samples on October 19, 2023 from the egg breaking operation, however due to biosecurity concerns at the farm, I was not able to observe the sampler. Collected samples from the farm were made available outside of the facility. I agitated its contents, and poured them into clean, pre-labeled containers for the analysis BOD, NFS, TKN, TN, TP. Grab samples were taken each day for the analysis of O&G. I recorded the pH, temperature, and flow that the city measured each day while the sample bottle was collected from the sampler.

From October 18, 2023, through October 19, 2023, I split effluent samples with the city of the process wastewater discharged from the Ag Processing Inc facility, utilizing a composite samplers owned and operated by Ag Processing Inc. Sample aliquots were taken every 15 minutes and collected into a clean Nalgene bottle, which was refrigerated. I agitated its contents, and poured them into clean, pre-labeled containers for the analysis of BOD, NFS, TKN, TN, TP. Grab samples were taken each day for the analysis of O&G. I recorded the pH, temperature, and flow that the city measured each day while the sample bottle was collected from the sampler.

On October 19, 2023, I took several grab samples from the biosolids processing room. I mixed the samples in a pan then composited the into one 32-ounce glass jar. I delivered the sample of biosolids with the other collected samples on October 20, 2023. The biosolids were analyzed for Metals, percent solids, TP, and TKN.

On October 17, 2023, and October 18, 2023, I placed the samples I collected on ice in an ice chest, sealed the container and shipped it overnight to the EPA Region 7 Science and Technology Center (STC) for analysis. On October 19, 2023, I placed the samples I collected on ice in an ice chest, sealed the container and hand delivered the samples to the EPA Region 7 STC for analysis. I followed Region 7 LSASD standard operating procedures in the collection, packaging, transportation, and handling of the samples. Field Sheets and Chain of Custody forms were electronically submitted each day following Region 7 procedures. All samples shipped arrived on time.

FACILITY DESCRIPTION

The Eagle Grove WWTF is owned and operated by the City of Eagle Grove, Iowa. The legal description is the SW ¼, Section 34, Township 91 North, Range 26 West within Wright County, Iowa. The physical address of the WWTF is 1342 SW 9th Street, Eagle Grove, IA 50533. The mailing address is 210 E. Broadway, PO Box 165, Eagle Grove, IA 50533. The WWTF treats domestic wastewater from the city of Eagle Grove. According to the NPDES permit there are three significant industrial users (Prestage Foods, Daybreak Foods, and Ag Processing Inc.) that discharge to the WWTF. Final effluent from the WWTF is discharged to Drainage Ditch #15. Drainage Ditch #15 flows south for approximately 2 miles before entering the Boone River.

The following are components of the WWTF. See attachment 4 for a layout map of the facility:

Headworks which includes mechanical screening
Grit removal
Chemical addition (MicroC 2000 is added before the anerobic zones)
(3)Anerobic Zones
(2) Oxidation Ditches with anoxic zones (activated sludge)
(2) secondary clarifiers
UV Disinfection
Peak Flow Equalization Basin

Biosolids are handled by the following sequence:

Aerobic Sludge Digestion (1)
Dewatering presses
Biosolids storage areas

According to Mr. Brockman, biosolids are land applied to agricultural ground by a contractor in the spring and fall of each year.

The facility has a designed average dry weather flow of 2.5 MGD with an actual flow average during the inspection of 1.8 MGD.

The WWTF's National Pollutant Discharge Elimination System (NPDES) Permit (IA-0034380) was issued on December 1, 2019 (attachment 5). The permit expires on November 30, 2024. The NPDES permit has been amended several times since being issued with the newest amendment on April 1, 2023.

The IDNR signed an Administrative Consent Order with the City of Eagle Grove on June 11, 2021 (attachment 6). The Consent Order requires that the City of Eagle Grove comply with the provisions of the NPDES permit, enforce the treatment agreement with Prestage Foods, revise the treatment agreements with Prestage Foods and Daybreak Foods, and complete construction of improvements to the WWTF by January 1, 2023. An amendment to the Consent Order gave the city until March 31, 2024 to complete construction.

FINDINGS AND OBSERVATIONS

The following findings were noted during the plant and record review. A complete summary is given in the NPDES Compliance Inspection Report Checklist (attachment 1) and EPA Region 7 Biosolids Checklist (attachment 2). These findings were discussed with Mr. Brockman during the exit meeting.

Self-Monitoring Data Review:

I obtained a spreadsheet of the NetDMR data for the Eagle Grove WWTF from January 2019, through September 2023, and reviewed the data. During the inspection, I also obtained an electronic copy of the facility's Discharge Monitoring Reports for the years 2019 – 2023.

Attachment 7 provides a table that lists the effluent violations from Outfall 006 that were reported to the IDNR. In summary, the facility violated the effluent limits for Nitrates, fifteen times, pH five times, Ammonia six times, and total suspended solids (TSS) once.

Sample Results

The analytical results from the sampling conducted during the inspection were received on November 20, 2023, from the Region 7 STC laboratory. This data was not discussed during the exit interview. The analytical results for CBOD, NFS, TKN, Ammonia, Nitrates+Nitrites, TN, TP, pH, temperature and flow of the samples I collected are presented in Tables 2 and 3 below. See attachment 8 for the analytical data packet for Activity JAH2401.

Table 1A: Analytical Results for Influent

Parameter	(October 17) 2300448-01	(October 18) 2300449-01	(October 19) 2300450-01
CBOD ₅ (mg/L) ¹	159	195	170
NFS (mg/L)	208	181	201
TKN (mg/L)	91.5	109	95.5
Nitrate+Nitrate (mg/L)	2.21	2.50	2.42
Total Nitrogen	93.7	112	97.9
Ammonia (mg/L)	79.5	79.8	75.6
Total Phosphorus (mg/L)	9.76	8.85	9.71
Temperature (°C) ²	18	6.82	19.6
pH ³	7.06	20.3	6.91
Flow	2.024	2.721	2.086

¹mg/L = milligrams per liter

² °C = degrees Celsius, Temperature was measured in the field.

³ pH is not to be averaged; pH was measured in the field.

Table 1B: Analytical Results for Effluent Samples Collected During Inspection

Parameter	(October 17) Sample # 2300448-02	(October 18) Sample 2300448-02	(October 19) Sample 2300448-02	Concentration Permit Limits ³
CBOD5 (mg/L)¹	2.81	ND	ND	40/25
NFS (mg/L)	ND	ND	ND	45/30
Ammonia (mg/L)	ND	ND	ND	For October 20.2/3.2
TKN (mg/L)	1.04	1.20	1.05	NA
Nitrate+Nitrite (mg/L)	21.9	19.8	17.9	NA
Total Nitrogen (mg/L)	22.9	21.0	19.0	NA
Total Phosphorus (mg/L)	0.450	0.342	0.326	NA
Temperature (°C)²	17.7	18.5	18.5	NA
pH²	7.14	7.41	7.49	6.0-9.0
Flow in MGD	1.735	1.885	1.856	NA

¹mg/L = milligrams per liter.²°C = degrees Celsius, pH is not to be averaged, pH was measured in the field.³Permit limits for CBOD and NFS are Monthly followed by 7-day Averages. Limits for Ammonia are Daily Maximum followed by 30-day average. Copper limits are for Daily Maximum followed by Monthly Average.⁴ND= No Detection**Table 1C: Analytical Results for Biosolids Sample Collected During Inspection reported as Milligrams per Kilograms (mg/kg)**

Parameter	October 19 2300450-03
Aluminum	1830
Antimony	ND
Arsenic*	8.04
Barium	ND
Beryllium	ND
Cadmium*	ND
Calcium	24800
Chromium	48.4
Cobalt	3.85
Copper*	388
Iron	62100
Lead*	5.29
Magnesium	ND
Manganese	1660
Molybdenum*	5.31

Nickel*	41.2
Potassium	6200
Selenium	ND
Silver*	ND
Sodium	2280
Thallium	ND
Vanadium	6.69
Zinc*	1140
Mercury*	0.114
% Solids	15.3

*40 CFR Part 503 Metals

Results from sampling conducted during the inspection indicate that the facility was in compliance with effluent limits set in the NPDES permit for the sampling conducted during the inspection.

Biosolids (sludge)

As mentioned above, the facility utilizes one aerobic digester and dewatering presses (photos 13-14) along with a storage area (photo 5) to treat and store biosolids. Mr. Brockman stated that biosolids are typically land applied in the spring and fall by a contractor.

During the inspection, I requested copies of the 2021 and 2022 annual biosolids reports. Mr. Brockman provided the 2021 and 2022 reports which include sampling results and hauling records. I reviewed the sampling data and it appears to meet the requirements of 40 CFR Part 503.

According to the 2021 and 2022 biosolids sampling results, the facility meets the Pathogen Reduction requirements for producing “Class B” biosolids aerobic digestion. Mr. Brockman also stated that the vector attraction reduction (VAR) is met by incorporating the biosolids into the field after land application. The 2021 biosolids report stated that approximately 2702.26 dry tons of biosolids were land applied while 1572.78 dry tons were land applied in 2022. In 2021, the land application rate equaled approximately 8.6 dry tons per acre and in 2022 the land application rate was 6.34 dry tons per acre.

Laboratory

The facility is certified (IA-Lab #420) by the IDNR for the analysis of CBOD, BOD, Ammonia, Total Phosphorus, pH, and TSS. During the inspection, I reviewed bench sheets for 2023. Mr. Brockman stated that during readouts, the bench sheets are filled out by hand then he transfers the handwritten sheets to an Excel Spreadsheet. After the conclusion of the inspection, Mr. Brockman provided the electronic copies of the bench sheets. During the review conducted during the inspection, I noted that the handwritten bench sheets matched the electronic copies for each day. I reviewed the electronic copies of the bench sheets and noted that the methods used

for BOD and TSS appear to follow the methods required by 40 CFR Part 136. Mr. Brockman stated that all sample analysis for the industrial users is conducted by Keystone Laboratories of Newton, Iowa. During the inspection, I requested the laboratory records to ensure that all analysis complied with requirements of 40 CFR part 136. My review indicated that all holding times were being met and that all analytical methods appeared to be in compliance with 40 CFR Part 136.

Collection System

During the inspection, I discussed the city's collection system with Mr. Brockman. Mr. Brockman estimated that the city has approximately 20 miles of sanitary sewer and includes four lift stations. Mr. Brockman stated that the city cleans approximately one quarter of the of sewer line per year with some "problem" areas cleaned more often.

Mr. Brockman and I observed three lift stations (photos 15, 17-18) during the inspection. I observed the wet wells at the "North" and "Prestage" lift stations. I noted that the north station was aging and Mr. Brockman stated that it was due for replacement in the near future. I also noted that the wet well at the Prestage wet well was in poor condition (photos 17-18). I noted that the coating within the wet well walls was peeling and that many of the metal components were severely corroded (photos 18). Mr. Brockman stated that the condition of the lift station was due to the high amounts of hydrogen sulfide gas that builds up in the lift station due to the nature of the process wastewater from Prestage Foods.

Mr. Brockman stated that the area around the North Lift Station has been a problem for inflow and infiltration issues (I&I). He stated that the city had planned a major sewer line project in this area, however, due to a lack of funding, that project has been put off for now.

Mr. Brockman stated that the city does experience bypasses from the sanitary sewer system from time to time. He also stated that since it has been very dry the past few years, the bypasses have been very infrequent. Mr. Brockman stated that the city responds to each call and notes if it is a private service line or the blockage is along the main. After the conclusion of the inspection, Mr. Brockman provided the bypass reports submitted to the IDNR for the years 2020-2023. I reviewed the reports then placed them in the ECAD electronic file system.

At the conclusion of the inspection, I issued a Notice of Preliminary Findings (NOPF) that included that the city must operate and maintain the sanitary sewer system in a way to reduce or eliminate the I&I that leads to sanitary sewer issues (attachment 9).

Industrial Users

As mentioned above, the facility has three significant industrial users (Prestage Foods, Daybreak Foods, and Ag Processing Inc.) that discharge process wastewater to the WWTF. Each industrial user has effluent limits for their respective process wastewater discharges that have been incorporated into the WWTF's NPDES permit. Below is a description of each industrial user and

results of sampling that was conducted during the inspection.

Prestage Foods

Prestage Foods is located at 3183 Highway 17, Eagle Grove, IA. This facility processes approximately 10,000 hogs per day for further processing. According to staff at Prestage, most of the pork is exported. Non-industrial wastewater including, but not limited to, domestic wastewater, boiler blowdown, reverse osmosis reject water, and non-contact cooling water is not treated by the on-site wastewater treatment system, but is mixed with treated industrial process wastewater before being pumped to the City of Eagle Grove. Industrial process wastewater is treated through pH adjustment, bar screen, Rotoscreen, three dissolved air floatation (DAF) units and two anaerobic lagoons that are operated in series (photos 19-33). The facility also has two lagoons that have been constructed but are not in operation. These were constructed for future expansions of the processing facility (photos 33).

Prestage Foods has a treatment agreement that lists effluent limits for the process wastewater discharged to the city's sanitary sewer system (attachment 10). These limits have been incorporated into the city's NPDES permit. Prestage Foods owns and operates the composite sampler used to collect samples on a bi-weekly basis. Split samples are supplied to the city. The city sends the split samples to Keystone Laboratories in Newton, Iowa for analysis. The sample analyses are submitted to IDNR on a monthly basis as part of the monthly operating reports (MORs) submitted to IDNR.

Attachment 7 provides a table that lists the effluent violations from Prestage Foods that were reported to the IDNR. In summary, the facility violated the treatment agreement limits for BOD, TSS, TKN, and flow once in 2019. In 2020, Prestage Foods violated the treatment agreement limits for BOD seven times, TSS eleven times, flow ten times, and TKN six times. In 2021 Prestage Foods violated the treatment agreement limits for BOD once, TSS three times, flow three times and TKN once. In 2022, Prestage Foods violated the treatment agreement limits for BOD five times, TSS four times, and flow three times. In 2023, Prestage Foods has violated the treatment agreement limits for BOD twice, TSS eight times, and flow nine times.

Starting in December 2022, the City of Eagle Grove has issued a Notice of Violation letter to Prestage Foods each month that there are violations of the limits set in the NPDES permit. Mr. Brockman supplied copies of the NOV letters sent to Prestage Foods for December 2022 through September 2023. I reviewed the NOV letters and then placed a copy of the letters within the ECAD electronic file system. The letters explain to Prestage Foods the violations that were noted from sampling results, however, they do not request that Prestage Foods take any steps to correct the violations. After the completion of the inspection, Mr. Brockman stated that letters were not sent out every month prior to 2022, however, he did state that he notified Prestage Foods of the violations that occurred through e-mail.

Below is a table that represents the analysis of samples collected at Prestage Foods that were obtained during the inspection. See attachment 11 for the analytical data packet for Activity JAH2402 which was received on November 7, 2023.

Table 2: Analytical Results for Samples Collected at Prestage Foods During Inspection

Parameter	(October 18) Sample # 2300451-01	(October 19) Sample #2300452-01	Mass Permit Limits³
BOD5 (lbs/day)	781.5	817.61	2500/2800
NFS (lbs/day)	1743.66	2094.60	2200/2600
Oil and Grease (mg/L)	8.15	8.09	100/150
TKN (lbs/day)	1244.66	1142.51	1400/1600
pH	6.89	7.24	6.5-9.0
Temperature	18.22	18.88	NA
Flow in MGD	1.435	1.427	1.50/1.70

³Limits are 30 average followed by daily maximums

For sampling conducted during the inspection, all parameters analyzed met the limits of the treatment agreement.

At the conclusion of the inspection, I issued an NOPF to the city, for previous violations of the treatment agreement leading to the appearance that Prestage Foods is interfering with the proper operation of the treatment plant (attachment 9).

Daybreak Foods

Daybreak Foods owns and operates two facilities that discharge process wastewater to the City of Eagle Grove. The first facility is the “farm” site (egg laying operation) and consists of a three-cell lagoon that treats process wastewater from the facility. Process wastewater discharges to the city’s sanitary sewer system through designated Outfall 001. The second facility is located on the north end of Eagle Grove and consists of an egg breaking facility. Eggs are brought from the farm, washed, then are broken. The contents are then collected, pasteurized, and put into tanker trucks that are sent to various customers for further processing. Process wastewater is collected by two underground storage tanks that allow solids to settle. Solids are removed on a monthly basis and are landfilled. Settled wastewater is sent to the Eagle Gove sanitary sewer system (photos 36-38). This discharge of process wastewater is designated at Outfall 002. No further treatment of the process wastewater is conducted before being sent to the city.

Daybreak Foods has a treatment agreement that lists effluent limits for the process wastewater discharged to the city’s sanitary sewer system (attachment 12). These limits have been incorporated into the city’s NPDES permit. Daybreak Foods owns and operates the composite

samplers used to collect samples on a weekly basis. Split samples are supplied to the city. The city sends the split samples to Keystone Laboratories in Newton, Iowa for analysis. The sample analyses are submitted to IDNR on a monthly basis as part of the monthly operating reports (MORs) submitted to IDNR.

According to the city's NPDES permit, each site has individual limits for pH and O&G. All other parameters (Flow, BOD, TSS, TKN, Total Phosphorus) are calculated by adding analytical sample results for each site. The calculated outfall is designated as Outfall 003. The calculated effluent limits went into effect on February 1, 2022.

Attachment 7 provides a table that lists the effluent violations from Daybreak Foods that were reported to the IDNR. In summary, the facility violated the treatment agreement limit for O&G once since 2022. Daybreak foods has violated the effluent limits for O&G eight times since 2022 for Outfall 002 and pH seventeen times since 2022. Daybreak Foods has violated the treatment agreement limits for Outfall 003 throughout the effective date of the limits. The facility has violated the limits for BOD nineteen times, TKN ten times, flow three times, and TSS once since the limits went into effect in February 2022.

Starting in September 2022, the City of Eagle Grove has issued a Notice of Violation letters to Daybreak Foods each month that there has been violations of the limits set in the NPDES permit. Mr. Brockman supplied copies of the NOV letters sent to Daybreak Foods for September 2022 through September 2023. I reviewed the NOV letters and then placed a copy of the letters within the ECAD electronic file system. The letters explain to Daybreak Foods the violations that were noted from sampling results, however, they do not request that Daybreak Foods take any steps to correct the violations. After the completion of the inspection, Mr. Brockman stated that letters were not sent out every month prior to 2022, however, he did state that he notified Daybreak Foods of the violations that occurred through e-mail.

Below is a table that represents the analysis of samples taken at Daybreak Foods that were obtained during the inspection. See attachment 13 for the analytical data packet for Activity JAH2404 which was received on November 8, 2023.

Table 3: Analytical Results for Samples Collected at Daybreak Foods During Inspection

Parameter	(October 19) Sample # 2300454-01 Breaker Facility	(October 19) Sample # 2300454-02 Farm	Calculated Outfall 003	Mass Permit Limits³
BOD5 (lbs/day)	641.26	13.97	655.23	503/670
NFS (lbs/day)	41.83	14.49	56.32	289/385
Oil and Grease (mg/L)	82.2	ND	82.2	NA
TKN (lbs/day)	87.52	27.62	115.14	120/135
Total Phosphorus (lbs/day)	10.29	3.86	14.15	38/50
pH	6.39	8.29	NA	NA
Temperature	23.49	34.28	NA	NA
Flow in MGD	0.033	0.048	0.081	0.100/0.150

³Limits are 30 average followed by daily maximums

For sampling conducted during the inspection, all parameters analyzed met the limits of the treatment agreement.

At the conclusion of the inspection, I issued an NOPF to the city, for previous violations of the treatment agreement leading to the appearance that Prestage Foods is interfering with the proper operation of the treatment plant (attachment 9).

Ag Processing Inc.

Ag Processing Inc. is a corn processing company that is located on the north end of Eagle Grove. The facility has an onsite wastewater treatment system that treats the process wastewater before discharging to the city's sanitary sewer system. Due to insufficient amount of time, I did not observe the wastewater treatment system, however, I did collect a sample of the effluent.

Ag Processing Inc. has a treatment agreement that lists effluent limits for the process wastewater discharged to the city's sanitary sewer system (attachment 14). These limits have been incorporated into the city's NPDES permit. Ag Processing Inc. owns and operates the composite sampler used to collect samples on a bi-weekly basis. Split samples are supplied to the city. The city sends the split samples to Keystone Laboratories in Newton, Iowa for analysis. The sample analyses are submitted to IDNR on a monthly basis as part of the monthly operating reports (MORs) submitted to IDNR. Attachment 6 provides a table that lists the effluent violations from Ag Processing, Inc. that were reported to the IDNR.

Attachment 7 provides a table that lists the effluent violations from Ag Processing Inc. that were reported to the IDNR. In summary, the facility violated the treatment agreement limits for BOD

three times since 2020 and TKN twice since 2020.

Below is a table that represents the analysis of samples that were obtained during the inspection. See attachment 15 for the analytical data packet for Activity JAH2403 which was received on November 8, 2023.

Table 4: Analytical Results for Samples Collected at Ag Processing Inc. During Inspection

Parameter	(October 19) Sample # 2300454-01	Mass Permit Limits³
BOD5 (lbs/day)	96.60	750/850
NFS (lbs/day)	25.1	117/351
Oil and Grease (mg/L)	ND	50/100
TKN (lbs/day)	6.97	9.5/25
pH	8.28	5.5-9.5
Temperature	36.1	NA
Flow in MGD	0.099	0.281/0.4415

³Limits are 30 average followed by daily maximums

For sampling conducted during the inspection, all parameters analyzed met the limits of the treatment agreement.

Stormwater

Federal regulations at 40 CFR 122.26(b)(14)(xi) requires that treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more to obtain a stormwater discharge permit to cover this type of industrial activity. As part of the stormwater permit, a facility is required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP). The facility developed a SWPPP on November 3, 2022 (attachment 16). After the conclusion of the inspection, I received an electronic copy of the SWPPP and reviewed it. I found that the SWPPP was complete and met the conditions set forth in the stormwater permit.

Operational Issues and Observations

1. I observed all areas of the WWTF during the inspection (photos 1-14). I noted that all units were operating and functional at the time of the inspection.
2. During the inspection, Mr. Brockman stated that he had concerns about the overall performance of the treatment facility. Mr. Brockman stated that due to Prestage Foods' treatment process, not enough BOD is being sent to the facility. According to Mr. Brockman, the city requested that Prestage Foods place a valve within the Prestage Foods treatment system that allows for a "bypass" of the anerobic lagoons. The bypass increases the amount of BOD discharged to the sanitary sewer system. However, by bypassing the anerobic lagoons, Prestage Foods typically violates the TSS requirements of their treatment agreement. He also stated that due to the lower amount of BOD sent to the WWTF, the facility has a hard time meeting the Nitrate effluent requirements due to the insufficient ratio of BOD to Nitrogen to achieve denitrification. He explained that in order for the facility to meet the Nitrate limits, the city started to add a chemical (MicroC 2000) that adds additional carbon to the wastewater. This supplemental carbon is added after the anerobic zones at the WWTF (photo 9). Mr. Brockman went on to explain as a condition of the Consent Order with IDNR a permeant building to house the chemical addition is currently being constructed.
3. During the inspection, Mr. Brockman also expressed concerns with the amount of biosolids that the facility is generating. Mr. Brockman stated that the aerobic digester was not sized properly when the facility was constructed and that detention times within the digester was not allowing for proper treatment of the biosolids. He also stated that the increase of solids from the raw "bypass" from Prestage Foods is causing the facility to run the biosolids presses more often. Running the presses more often in turn generates more solids that must be disposed of.

Summary

A NOPF was issued to the city for the following:

- Effluent violations
- Industrial Users not complying with limits of their treatment agreements or the limits set in the NPDES permit
- Not maintaining the sanitary sewer system to reduce or eliminate sanitary sewer overflows.

The facility has had previous effluent violations for Nitrates, Ammonia, TSS, and pH. The facility is currently working to correct the Nitrate violations by adding more BOD to the treatment system.

The facility has three significant industrial users that discharge to the sanitary sewer system. Two of the significant industrial users have consistently not met the treatment agreement effluent limits set in the NPDES permit. The facility must ensure that all industrial users comply with the effluent limitations set in the NPDES permit.

**JOSEPH
HEAFNER**
Joe Heafner
Life Scientist

Digitally signed by
JOSEPH HEAFNER
Date: 2023.11.30
11:13:43 -06'00'

**JODI
BRUNO**
Jodi Bruno
Branch Manager

Digitally signed by JODI
BRUNO
Date: 2023.11.30
11:42:16 -06'00'

Attachments:

1. Water Compliance Inspection Report, Form 3560-3 (4 pages)
2. EPA Region 7 Biosolids Checklist (3 pages)
3. Digital Photographs with Photo Log (46 pages)
4. Facility Satellite Photos/Maps (1 page)
5. NPDES permit issued on December 1, 2019 (36 pages)
6. IDNR Administrative Consent Order and Amendment (7 pages)
7. Effluent violation tables (8 pages)
8. Laboratory Analytical Report for Activity JAH2401 (Eagle Grove WWTF) (25 pages)
9. NOPF (2 pages)
10. Prestage Foods Treatment Agreement (7 pages)
11. Laboratory Analytical Report for Activity JAH2402 (Prestage Foods) (15 pages)
12. Daybreak Foods Treatment Agreement (10 pages)
13. Laboratory Analytical Report for Activity JAH2404 (Daybreak Foods) (14 pages)
14. AGP Treatment Agreement (11 pages)
15. Laboratory Analytical Report for Activity JAH2403 (AGP) (13 pages)
16. Eagle Grove WWTF partial SWPPP (19 pages)