

REPORT OF CONCENTRATED ANIMAL FEEDING OPERATION INSPECTION

AT

Neosho Valley Feeders, LLC
26059 Victory Road
Parsons, Kansas 67357
620-423-5418
NPDES Permit # KS0041726

ON

April 9, 2024

BY

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 7
Enforcement and Compliance Assurance Division

1.0 INTRODUCTION

On April 9, 2024, I conducted a Concentrated Animal Feeding Operation (CAFO) Compliance Evaluation Inspection (CEI) of the Neosho Valley Feeders, LLC facility. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended. This narrative report and attachments present the findings and observations made during the inspection.

2.0 PARTICIPANTS

Neosho Valley Feeders, LLC:
Nathan Beachner, General Manager (not present at site visit)
Scott Poor, Farm & Operations Manager
Brent Bayliff, Safety Director

Kansas Department of Health and Environment (KDHE):
Casey Guccione, Section Chief, Livestock Waste Management

U.S. Environmental Protection Agency (EPA), Region 7, Enforcement Compliance and Assurance Division (ECAD), Water Branch:
Suzanne Ward, Physical Scientist 913-551-7251 (Lead Inspector)
Joseph Heafner, Physical Scientist 913-551-7091 (Credentialed Inspector)
Zachary Leibowitz, Physical Scientist 913-551-7553
Adam Hendrickson, Physical Scientist 913-551-7253

3.0 INSPECTION PROCEDURES

I conducted this inspection in accordance with EPA Region 7 Standard Operating Procedures (SOPs) No. 2332.09 Bio-Security Procedures for Conducting NPDES Compliance Evaluations at

Animal Feeding Operations and No. 2332.08 Animal Feeding Operation Inspection Program unless otherwise noted.

Prior to the inspection, I reviewed documents for Neosho Valley Feeders, LLC, including aerial imagery, previous KDHE inspection reports and correspondence, and the permit conditions of the NPDES permit # KS0041726 (Attachment 5) for familiarization with the requirements specific to this facility.

I contacted Scott Poor, Farm & Operations Manager, on Monday, April 8, 2024, to schedule an inspection at Neosho Valley Feeders, LLC for Tuesday, April 9 at 10:00 a.m. and he agreed to that day and time. The General Manager, Nathan Beachner, was unavailable that day, but he agreed to a virtual meeting following the on-site inspection. During the on-site inspection, I was accompanied by Joseph Heafner, Zachary Leibowitz, and Adam Hendrickson of EPA Region 7.

On Tuesday, April 9, 2024, prior to entering the facility, I conducted visual reconnaissance from Victory Road to identify any areas of concern visible from the public right-of-way. At approximately 10:35 a.m., we met with Scott Poor, Brent Bayliff, and Casey Guccione (KDHE) in the main office of Neosho Valley Feeders, LLC where we signed a log in sheet upon entry. I started the entry briefing conference with introductions and I presented my EPA identification to Mr. Poor and Mr. Bayliff, who acted as the official facility representatives during the inspection. Mr. Poor stated that he has been employed by NVF, LLC for three years. Mr. Heafner provided his inspector credentials and Mr. Leibowitz and Mr. Hendrickson provided their EPA identifications. I explained that the purpose of the inspection was to evaluate the facility's compliance status with the Clean Water Act (CWA) and permit requirements under the authority of Section 308(a) of the Federal Water Pollution Control Act. I explained that the scope of the inspection would include a records review, a review of operations, waste generation and management practices, and a visual inspection of the facility, which may include the collection of photographs, documents, and samples. I asked if there were additional safety or biosecurity concerns or procedures we should follow and was told no. I provided Mr. Poor with a printed copy the following documents:

- U.S. EPA Notice Regarding Propriety/Confidential Business Information (CBI) Information Sheet and Form. I made Mr. Poor aware of Neosho Valley Feeders LLC's confidentiality rights and informed him that they had 10 business days to return the form signed if they needed to make any claims. He did not raise CBI claims during the inspection.
- Livestock and Poultry Operation Inspections Under EPA's National Pollutant Discharge Elimination System Program Fact Sheet (EPA 305-F-14-001).
- U.S. EPA Small Business Resources Information Sheet (EPA-300-F-21-002).

Mr. Poor provided all information pertaining to the facility's operation, although he said questions specifically about cattle should be directed to Mr. Beachner during the virtual follow-up meeting. Mr. Poor and Mr. Bayliff accompanied us during the visual inspection of the facility. Following the visual inspection, I summarized the findings and recommendations with Mr. Poor and Mr. Bayliff in an exit briefing conference. I concluded the inspection and we left the facility at approximately 2:30 p.m.

I did not collect samples. I took 193 photographs during the visual inspection. Descriptions of all photos taken are listed in Attachment 2 – Photo Log. Visual images of 103 photographs are

displayed in Attachment 1 – Photographs. I received electronic documents for review following the on-site inspection.

On Thursday, April 11, at 2:00 p.m., I met virtually with Nathan Beachner and Scott Poor. I conducted the follow up meeting to go over the inspection and ask additional questions of Mr. Beachner. I reviewed the purpose and scope of the inspection and advised Mr. Beachner of the printed documents I left with Mr. Poor. At the end of the virtual meeting, I informed Mr. Beachner that I would communicate any deficiencies found during my review of the records.

4.0 FACILITY DESCRIPTION

Neosho Valley Feeders, LLC's permit, KS0041726 (Attachment 5), was last issued on November 27, 2023 and expires on November 26, 2028. KDHE received the renewal application (Attachment 6) on July 2, 2023, prior to expiration of the previous permit cycle. The permit sets forth requirements and conditions that the permittee is to follow.

Neosho Valley Feeders, LLC owns and operates this approximately 306-acre beef feedlot and has 24 employees. Mr. Poor said the feedlot was originally constructed under different ownership in the 1970s and was purchased by Neosho Valley Feeders, LLC in 2007. The facility is located at 26059 Victory Road in Parsons, Kansas and falls in both Labette and Neosho Counties. The legal description for the Labette County portion of the facility is all of Section 5 and the E ½ of Section 6, Township 30S, Range 21E and the Neosho County portion is the S ½ of Section 32, Township 30S, Range 21E. The facility including the beef feedlot, Waste Storage Pond 1, and Waste Storage Pond 2 is located on one parcel in Labette County. Waste Storage Pond 3 is located on one parcel in Neosho County. Center pivot fields are located on nine parcels. According to the Open Records for Kansas Appraisers – Labette County and Neosho County, Neosho Valley Feeders, LLC owns 23 parcels in Labette County and nine (9) in Neosho County. See Attachment 14 for a list of parcels.

Neosho Valley Feeders is permitted for a maximum capacity of 20,000 head of cattle over 700 pounds and four (4) horses. According to the Facility Description in Section A of the permit, the facility consists of approximately 197.3 acres of open lot pens, feed mill area, and miscellaneous feedlot areas. Mr. Poor confirmed that the permit's facility description is correct and additionally consists of 80 open pens, three (3) feed storage areas, a freshwater pond, a mortality composting area, seven (7) sediment basins, three (3) waste storage ponds, and seven (7) center pivots. Based on my analysis of aerial imagery, the full area of all listed features except the center pivot fields is approximately 306 acres. The facility has fuel storage capacity of approximately 6,000 gallons on-site for farm equipment. Mr. Poor said they have an SPCC plan, but it was not verified during this inspection.

Compliance History

Kansas Department of Health and Environment (KDHE) conducted the last Livestock Waste Compliance Inspection of the facility on February 21, 2023 (Attachment 7). The facility was found to be in compliance; however, the inspection report documented areas of concern including sediment basins not reflected in the permit, uncontrolled surface runoff from a 17.1-acre extraneous area discharging via a culvert to the Neosho River, mortality composting not in approved Nutrient Management Plan (NMP), and an uncontrolled silage area in the northwest portion of the facility. I evaluated the current status of the KDHE findings during my inspection. At the time of the EPA inspection all sediment basins had been added to the most recent permit

cycle effective November 27, 2023. Surface runoff from the 17.1-acre extraneous area had been redirected to the north end of Waste Storage Pond 1 (WSP 1). Mortality composting was added to the May 2023 NMP. Lastly, a diversion berm was constructed on the north side of the feed commodities area to direct flow to Sediment Basin 7 then WSP 1.

5.0 FINDINGS AND OBSERVATIONS

Records Review

Prior to the inspection, I emailed Mr. Poor and Mr. Beachner to request the following documents for review: animal numbers, waste storage pond levels, solids export records, mortalities, open lot pen cleaning, weekly visual inspections of stormwater structures and waste storage ponds, daily visual inspections of water lines, and land application records. Documents were provided by Mr. Poor electronically via a secure file transfer software on April 9, 2024 following the on-site inspection. Records I reviewed from Neosho Valley Feeders LLC included Operations Annual Report (2021-2024), 2021 Manure and Lagoon Samples, 2021 Soil Circle 1–7, 2022 Soil Sample NVF Circle 1-7, 2023 Lagoon 1-3 samples, 2023 Manure analysis, 2023 Pivot 1-7 samples, NMP Annual Rates & Change, NVF pen map, and mortality records.

Records I reviewed from KDHE included 2018-2023 Annual Reports with KDHE responses; various construction documents for the waste storage ponds; KDHE inspection reports for February 1, 2023, June 14, 2021, September 1, 2020, May 20, 2019, and September 25, 2018; May 2023 Nutrient Management Plan (NMP) with September 21, 2023 KDHE review; and the 2018 and 2023 permits, permit applications, and accompanying documents.

CAFO Status

This facility is permitted for a maximum capacity of 20,000 head of cattle over 700 pounds. During the inspection, Mr. Poor stated there were approximately 14,000 cattle and two horses on site. In the virtual follow-up, Mr. Beachner confirmed there were approximately 14,400 cattle on-site. Mr. Beachner said cattle are purchased daily and weekly and are transported via trucks owned by Neosho Valley Feeders LLC. Days on feed is based on the cattle's weight upon arrival with an average turnaround time of 180 days in unvegetated pens. The "Head #" listed in March of the 2024 Operations Reports by Month (Attachment 11) documents 14,454 head of beef cattle over 700 pounds. Based on information provided by the facility, I determined that Neosho Valley Feeders meets the definition of a Large CAFO as it is defined in Title 40 of the Code of Federal Regulations, Part 122.23. Additionally, I reviewed animal numbers in the 2021, 2022, and 2023 reports and determined that the facility has not exceeded their permitted maximum capacity.

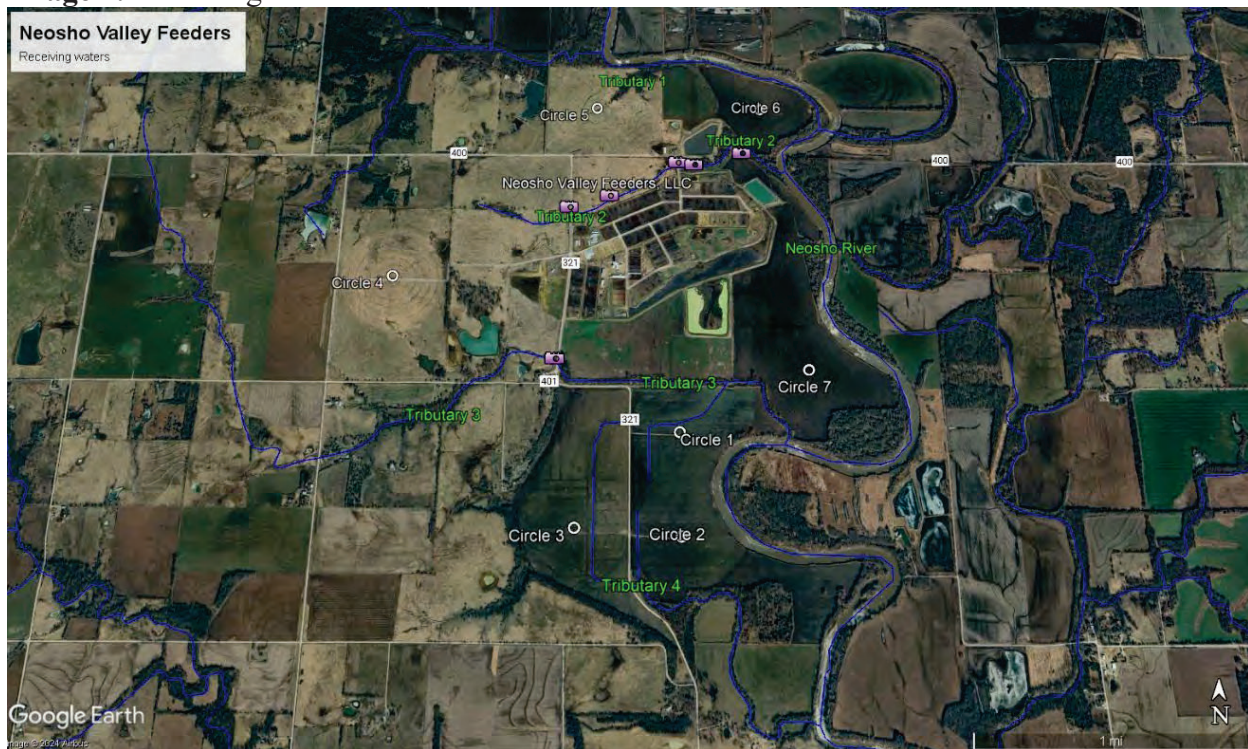
Visual Inspection

The weather conditions on April 9, 2024, at the time of the inspection were sunny and approximately 60°F (Photo 11). During the inspection I evaluated stormwater drainage patterns from production areas through ditches and conveyances into sediment basins and the waste storage ponds. I conducted visual inspections of two unnamed tributaries to the Neosho River, a pasture across the street/to the west of the feedlot, the freshwater storage pond, the feed storage areas, the feed mill area, the mortality composting area, open lot pen areas, stormwater infrastructure including ditches, conveyances, and diversion berms, sediment basins 1 through 7, Waste Storage Ponds 1, 2, and 3, and center pivot Circle 6.

Observations I made during the Records Review and Visual Inspection are documented below in relation to requirements of the permit.

Receiving Water. The Neosho Valley Feeders LLC facility is located in the Halfmoon Lake-Neosho River Watershed (HUC 110702050202). The Neosho River and several unnamed tributaries receive clean diverted flow and uncontrolled flow from this facility. At least four unnamed tributaries of the Neosho River are located in proximity of the feedlot or of fields irrigated by center pivots for the land application of wastewater. For the purposes of this inspection, unnamed tributaries will be labeled as designated in Image 1 and visual inspection locations are marked by a purple camera.

Image 1. Receiving Waters



The Neosho River flows from north to south forming the eastern boundary of parcels owned by Neosho Valley Feeders LLC. The receiving section of the Neosho River (State Waterbody ID: KS-1107020511) is classified as a general purpose water with designated uses including special aquatic life, primary contact recreation B, domestic water supply, food procurement, ground water recharge, industrial water supply, irrigation, and livestock watering. I did not visually inspect the Neosho River.

Tributary 1 flows from south to north and empties into the Neosho River. It drains flow from the Circle 5 field. A portion of the tributary has riparian cover and a portion flows through the irrigated area with no riparian cover. I did not visually inspect Tributary 1.

Tributary 2 flows from west to east along the north diversion berm of the feedlot and empties into the Neosho River. Tributary 2 receives flow from pasture on both sides of Victory Road, the Circle 6 field, and other agricultural fields. I visually inspected Tributary 2 at five locations: the

road crossing with Victory Road (Photos 1,2), in the cattle pasture north of the diversion berm for C-alley (Photos 127-129), at the access road crossing north of the diversion berm (Photos 116, 119), downstream of the access road crossing (Photos 112, 113), and at the Circle 6 access road crossing (Photos 151, 154).

Tributary 3 flows from west to east and empties into the Neosho River. Tributary 3 receives flow from Circle 4 via another tributary, the pasture on Victory Road storing uncontrolled feed stock and a manure stockpile, Circle 7, Circle 1, and other agricultural fields. I visually inspected the Tributary 3 at the road crossing with Victory Road (Photos 3, 6, 9).

Tributary 4 flows from west to east and empties into the Neosho River. It receives flow from Circle 3 and Circle 2. I did not visually inspect Tributary 4.

Permit Requirements

Section B. Operations and Maintenance Requirements

The permit requires runoff containing livestock and related agricultural wastes to be collected, retained, and disposed. Runoff from the open lot pens, feed mill area, feed storage areas, composting area, and other miscellaneous areas is directed via diversion berms and ditches towards seven (7) sediment basins, which empty into Waste Storage Pond 1 (WSP 1).

Wastewater flows via a surface conveyance to WSP 2 or is pumped to WSP 3.

Raw materials storage area:

Controlled feed storage areas. I observed two adjacent feed storage areas draining to separate sediment basins and a feed mill (Photo 79). The feed storage areas are not named by the permit or the facility. For the purposes of this inspection, I distinguished these areas by naming them the new feed storage area and the existing feed storage area.

The new feed storage was initially identified in the February 1, 2023 KDHE inspection report (Attachment 7): “The area where the proposed feed pens were scheduled to be built did not have runoff controls for the silage pile. The facility started to build a temporary diversion berm to control the silage that day and diverted it towards the wastewater lagoon. Nathan Beachner stated that they would no longer use the area for silage after the existing silage had been depleted.” At the time of my inspection, the area was still being used for feed storage (Photo 136). The temporary diversion berm that was constructed during the 2023 KDHE inspection was still intact. The diversion berm runs east and west along the fence of the north boundary of the new feed storage area (Photo 135). The berm directs stormwater flow to the east towards another permanent diversion berm north of C-alley (Photos 140, 141). Stormwater flow is conveyed via a ditch running east to west towards Sediment Basin 7 then to WSP 1. The diversion berms run parallel to and prevents stormwater from discharging to an unnamed tributary of the Neosho River. It was not raining at the time of the inspection so I was unable to determine effectiveness of the new diversion berm. The new feed storage area is not included in the 2023 Nutrient Management Plan.

The existing feed storage area includes an open pole barn shelter on a concrete pad to store chopped feed (Photos 82, 87) and an open concrete pad to store covered feed stock (Photos 87, 88). Runoff from the chopped feed barn drains south to a ditch between the 700-alley pens then to Sediment Basin 1. Runoff from the open concrete pad is conveyed east by an open concrete

channel to a metal culvert and then south in a ditch along the east side of the 700-alley pens to Sediment Basin 1 (Photos 81-83).

Uncontrolled feed storage area.

Section B and Standard Conditions of the permit require runoff containing livestock related wastes and process wastewater to be controlled and/or do not allow discharge from raw materials storage. During reconnaissance prior to entering the facility, I identified uncontrolled round hay bales and a manure stockpile in a pasture west of the main entrance on Victory Road (Photos 9, 10, 16) (**Finding 1**). I observed at least 15 uncovered hay bales and an unknown number of wrapped hay bales stacked at least two high. I discussed this location with Mr. Poor. He confirmed that the pasture is owned by Neosho Valley Feeders, LLC. Mr. Poor said the hay bales had been there for approximately one year because the feed type is not used frequently. I advised him that the permit requires all runoff to be controlled by being directed to the waste storage ponds so that it does not discharge directly to surface waters. At the follow-up meeting, he said that no water gets in or out of the round bales because they're wrapped. Runoff from this uncontrolled area flows south to Tributary 3.

Animal confinement area:

Open lot pens. This facility confines cattle in 80 open lot pens arranged and numbered by alleys known at the facility as A-alley, B-alley, C-alley, N-alley, 500-alley, and 700-alley. I documented the drainage patterns I observed in Attachment 3 – Aerial Map of Production Area Features with Water Flow.

Section B of the permit requires manure accumulations in open pens to be cleaned at specific intervals. Mr. Poor stated that open pens are scraped into a pile while occupied and the pile is removed once the pen is unoccupied. During the inspection, I observed occupied pens being scraped (Photo 94) and unoccupied pens that had been scraped and awaiting the manure stockpile to be removed (Photo 179). During inspection follow up, Mr. Beachner said that manure stockpiled in pens is removed as soon as the weather allows, but the piles are removed within a few months.

Each pen has overflow water tanks to prevent water from freezing during winter. When the overflow feature is utilized, excess water is discharged from 2-inch PVC pipes into the ditches, sediment basins, or Waste Storage Pond 1 (Photo 64).

Water lines and freshwater storage pond. Water for cattle is pumped from the Neosho River to the freshwater storage pond (Photo 159). Water is distributed via the pump house to the pens by underground water lines. The pump house is located within the bermed area of the facility (Photo 29). Section B of the permit requires daily visual inspections of water lines. I asked Mr. Poor if they conduct the daily inspections. He said they do not conduct visual inspections, but they utilize AgSense to digitally monitor and control the pressure and pumps. Mr. Poor said they haven't experienced any problems with AgSense.

Manure Storage areas:

Mortality composting area. The mortality composting area is located south of the east end of the N-alley pens (Attachment 3). Composting is conducted on a concrete pad (Photos 101, 161, 164, 165, 167, 168). A diversion berm along the south and east sides of the composting area directs

runoff to Sediment Basin 6. Any runoff not directed by the diversion berm flows into the extraneous drainage area, then into Waste Storage Pond 1.

Controlled manure storage. The facility developed an area north of the east end of the C-alley pens to stockpile manure (Photos 106, 111) (Attachment 3). Mr. Poor said they normally try remove manure and haul it straight from the pen to the land application field, but the stockpile area provides a space within the diversion berms to stockpile manure. Runoff from the manure storage area drains to Sediment Basin 7. A driveway was constructed to enter the storage area from the diversion berm access road. The storage area is higher in elevation than the diversion berm (Photo 106). It is possible that water could sheet flow down the driveway and discharge on the north side of the berm during a rain event. It was not raining during the inspection and I did not observe evidence of past discharge.

Uncontrolled manure storage. Section B and Standard Conditions of the permit require runoff containing manure to be controlled and/or do not allow discharge of manure. Prior to entering the facility, I identified uncontrolled round hay bales and a manure stockpile in a pasture west of the main entrance on Victory Road (Photo 9, 10, 16) (**Finding 1**). I discussed this location with Mr. Poor. He confirmed that the pasture is owned by Neosho Valley Feeders, LLC. I advised him that the permit requires all runoff to be controlled by being directed to the waste storage ponds so that it does not discharge directly to surface waters. Mr. Poor said that the manure stockpile had been there for about one week, but they've put a new pile there every week for the last 3 weeks. He said that the manure is being sold to an external party, but he did not know the name. Manure is stockpiled in that location so it is accessible after hours. The facility immediately started moving the stockpile after the inspection and said they would find a controlled location for future use. Mr. Poor provided photo documentation via email that the entire pile was removed by April 16, 2024 (Attachment 15). Runoff from this uncontrolled area flows south to Tributary 3.

Waste containment areas:

Stormwater conveyances from production areas and pens to sediment basins. Process wastewater throughout the facility is directed by ditches and diversion berms into sediment basins. I visually inspected the ditches and diversion berms throughout the facility.

Along the north boundary of the facility, a diversion berm generally running east and west directs flow from portions of N-alley and all of C-alley pens into Sediment Basin 7 (Photos 103, 108, 124, 129, 132, 140, 141, 142). The diversion berm prevents discharge to Tributary 2. The east-west oriented ditch conveys flow via a road culvert under a north-south oriented access road which splits the C-alley pens into east and west areas (Photos 121, 122). Flow in this ditch drains from west to east into Sediment Basin 7. A 500-to-700-foot segment of the ditch on the east side of the access road is full of sediment and manure solids, which may cause flow issues during a rain event (Photo 110, 111, 122). Mr. Poor said they would raise the berm in order to prevent a discharge. The facility began working on the modifications and Mr. Poor provided photo documentation via email on April 16, 2024, that the segment of berm in question had been raised 3-feet (Attachment 15).

A ditch draining the east end of N-alley pens directs flow from the east to west along the mortality composting area, under an access road via culvert, then south towards Sediment Basin 6. The ditch was full of sediment-manure, which may cause flow issues during a rain event

(Photos 101, 102, 169, 173). This would not likely result in a discharge given that is well within the bermed areas of the facility.

As discussed in the 2023 KDHE Report (Attachment 7), the 17.1-acres of extraneous drainage adjacent to the mortality composting area discharged process wastewater via an 18-inch culvert outside of the bermed area and to the Neosho River. I visually inspected the area where flow was redirected to the east end of Waste Storage Pond 1. I observed the removed conveyances, repaired berm, and new conveyance into WSP 1 (Photos 30-33).

The ditches draining 700-alley, 500-alley, A-alley, B-alley, and the west portion of N- and C-alleys were free of excessive solids/manure deposits (Photos 18, 19, 22, 23, 24, 25, 28, 29, 55, 68, 78, 81, 83, 86, 105, 123, 130, 132, 138, 139, 141, 142, 180). Portions of B-alley and other areas surface flow directly into WSP 1 instead of flowing through a ditch (Photo 57).

Section B of the permit requires weekly visual inspections of stormwater diversion devices, runoff diversion structures, devices channeling runoff and wastewater containing livestock or related wastes to the water pollution control facilities. Additionally, Section B of the permit requires deficiencies to be corrected as soon as possible. Mr. Poor documents weekly inspections in the KDHE provided Operations Annual Report (Attachment 11). I asked Mr. Poor to describe the inspections. He said that his visual inspections include driving the waste storage pond berms, inspecting vegetation, and recording lagoon levels. Visual inspections of the ditches and diversion berms are not formally conducted and documented (**Finding 2**). Correction of observed deficiencies, such as excessive solids, are not documented to demonstrate the deficiency was corrected and the timeframe is adequate (**Finding 3**). The permit identifies a diversion ditch north of Waste Storage Pond 3, which should also be visually inspected.

Sediment basins. Sediment basins are not assigned a number or name by the facility or permit. For the purposes of this report, they will be numbered one through seven. See Attachment 3 for sediment basin locations. Section B of the permit requires basins to be cleaned whenever solids accumulations exceed one-half the depth of the basin. During the entry conference, Mr. Poor said that two sediment basins needed to be cleaned because solids had not been removed in the last three years. He said they would hire the work out, but the process to clean them would include removing solids from the berm, dewatering solids within the controlled area, then exporting solids to an outside party. During the visual inspection I observed solids exceeding one-half the depth in Sediment Basins 1, 5, and 7 (**Finding 3, 4**). I observed standing water in Sediment Basins 2, 3, 4, and 6. Casey Guccione, KDHE, brought up Kansas design standard concerns. He said a sediment basin can only contain water for 10 days or it could be considered a lagoon, which would need to be lined. Mr. Poor said they could potentially adjust the standpipe to lower water levels. My observations and photo references of the sediment basins are documented in Table 1.

Section B of the permit requires weekly visual inspections of stormwater diversion devices, runoff diversion structures, devices channeling runoff and wastewater containing livestock or related wastes to the water pollution control facilities. Visual inspections of the sediment basins are not formally conducted and documented (**Finding 2**).

Table 1. Sediment basin observations

Basin	Receives flow from	Conveys flow to	Visual observations
1	Part of feed storage, part of N-alley, 700-alley	Sediment Basin 2 then WSP 1	No water, full of sediment, needs cleaned (Photos 70, 73, 75, 76)
2	Flow from Sediment Basin 1, 500-alley	WSP 1	Standing water with direct surface connection to WSP 1 (Photos 69, 70)
3	Feed mill & hospital	WSP 1	Standing water (Photo 66)
4	A-alley, part of B-alley, part of N-alley	WSP 1	Standing water (Photo 181)
5	Part of N-alley, part of B-alley	Sediment Basin 6 then WSP 1	Some water, full of sediment, needs cleaned (Photos 98, 175)
6	Flow from Sediment Basin 5, part of B-alley, mortality compost area, part of N-alley	WSP 1	Standing water (Photos 175)
7	Part of feed storage, C alley, part of N-alley	WSP 1	Full of sediment, needs cleaned (Photos 103, 104)

Waste storage ponds (WSP). The facility utilizes three waste storage ponds (WSP 1, WSP 2, WSP 3) to contain process wastewater and solids from production areas until the wastewater is land applied via center pivot. Flow from all sediment basins is conveyed to Waste Storage Pond 1. Once the wastewater level in WSP 1 reaches approximately 5.9 feet below the berm, excess wastewater freely flows via an open concrete conveyance into WSP 2 (Photos 41, 42). Wastewater is pumped from WSP 1 via two 30 hp pumps and from WSP 2 via one 50 hp pump to WSP 3 as needed to allow for additional storage in WSP 1 and 2 (Photos 44, 47, 51, 52, 54).

Waste Storage Pond 1 is irregularly shaped with a general east-west orientation. An access road divides WSP 1 near the west end (Photo 60, 61). Water freely flows under the access road via culverts installed below the water line. The far west end of WSP 1 also has a surface connection with Sediment Basin 2. Mr. Poor said there is a 4-foot clay wall underwater between Sediment Basin 2 and WSP 1, which is intended to retain solids. Casey Guccione, KDHE, brought up Kansas design standard concerns. He said a sediment basin can only contain water for 10 days or it could be considered a lagoon, which would need to be lined.

Section B requires the permittee to remove sludge from the waste storage ponds when solids accumulations infringe on the operating level. The 2021 KDHE inspection documented solids clean out in WSP 1. I asked Mr. Poor to describe the clean out. He said they lowered the operating level in the waste storage pond and hired an operator to remove solids from the bank to do a partial clean out, which took about 2-3 weeks. Casey Guccione, KDHE, said this type of cleanout does not require a permeability test. Mr. Poor said their ongoing maintenance plan for the waste storage ponds is to conduct solids cleanouts when they have 5 feet of sludge built up, but it is weather dependent. During the visual inspection, I was unable to see any solids accumulation in WSP 2 and WSP 3. I observed solids accumulation above the water level in the east end of WSP 1 (Photo 30, 34, 36).

Section B requires the permittee to maintain wastewater below a maximum level in each waste storage pond. The permitted levels are specified in vertical feet below the lowest point of the top

of the berm. Section B and the Standard Conditions require a permanent water level measurement device using feet as the units marked every ½ foot installed in each WSP. I observed wastewater levels below the maximum level in all waste storage ponds during the visual inspection (Photo 47, 54, 146). I reviewed operating levels in the Operations Reports for January 1, 2021, through April 8, 2024. The records review indicated WSP 1 and WSP 2 were at the maximum operating level of 5.0 feet in May 2021, June 2021, and June 2022. WSP 1 and WSP 2 exceeded the maximum operating levels at 4.5 feet in July 2-7, 2021, and June 9-23, 2022 (**Finding 5**). WSP 3 did not exceed the maximum operations levels. My observations of the waste storage ponds are summarized in Table 2 below.

Table 2. Waste Storage Pond levels and observations

Structure	Max & Dec. 1 level	Observed level	Additional observations
WSP 1	5.0 feet	5.5 feet	Solids accumulation in east end (Photos 30, 34, 36) Measurement device bent near the 3-foot marker (Photo 54)
WSP 2	5.0 feet	>6.0 feet	Unable to determine exact measurement due to vegetation overgrowth (Photo 47)
WSP 3	3.0 feet	7 feet	No half foot markers present (Photo 146)

Section B of the permit requires weekly visual inspections of the waste storage ponds. Additionally, the Federal Regulations require visual inspection, including notes about vegetation, animal burrows, erosion, etc. Mr. Poor conducts the weekly visual inspections and documents them electronically in the KDHE Operations Report spreadsheet (Attachment 11). I asked Mr. Poor to describe the inspections. He said that his visual inspections include driving the lagoons berms, inspecting vegetation, and recording lagoon levels. He said if he identifies deficiencies, he has them repaired immediately although the activity is not documented in the Operations Report spreadsheet. I reviewed weekly visual inspections for January 1, 2024, through April 8, 2024. Visual inspections are recorded on the Operations Reports by checking a box that the inspection was completed. According to the Operations Reports, visual inspections of the waste storage ponds are reportedly conducted twice a week and at times once a week. As needed, visual inspections are conducted daily. The Operations Report also provides a space to include additional notes about the visual inspection and corrective actions. The facility is not currently using this space to document notes.

Vegetation on berms of all waste storage ponds was well controlled in some areas and overgrown in others. I did not observe any deep-rooted vegetation. Excessive vegetation on inside of the WSP 2 berm prevented me from getting an accurate reading of the measuring device (Photo 14, 38, 44, 45, 52, 55, 57, 60, 65).

Section C. Nutrient Management Plan Requirements

Land application – compost and manure solids

Mortality compost. The permit allows mortality disposal via composting or rendering. Both methods are discussed in the 2023 Nutrient Management Plan. Mr. Poor said they have been unable to retain rendering services so the primary method of disposal at the facility is composting. Composting is conducted on a concrete pad. Fescue screens, also stored on the pad, are added to improve the composting process. Mr. Poor said they compost approximately 30 cattle per month. I reviewed mortality records for January through March 2024. I verified the average number of mortalities is approximately 30.

As reported in the 2019 to 2023 Annual Reports, compost is exported to LaForge (2020, 2022), A & V Manners (2021), Beachner Bros Inc (2022, 2023). The Site-Specific Requirements of permit Section C requires compost to be analyzed at least annually. Page 16 of the 2023 NMP says the facility will “sample manure, wastewater, compost, litter, used bedding, and/or sediment basin/lagoon sludge at least annually.” I asked if the compost is analyzed prior to transfer. Mr. Poor said the manure is analyzed when scraped from the pen as manure, but the final composted material is not analyzed (**Finding 6**).

Manure solids. Section C of the permit says all solid livestock wastes are exported, and the application of the waste is not controlled by the permittee. As reported in the 2019 through 2024 Annual Reports, manure solids and composted materials are exported to “Beachner Bros”. I asked the General Manager, Nathan Beachner, if there is a relationship with Beachner Bros. He said that there is a relationship, but Neosho Valley Feeders and Beachner Bros are two distinct entities. I reviewed business filings from the Kansas Secretary of State for both entities. Gary Beachner is the Registered Agent for Neosho Valley Feeders, LLC and the President and Registered Agent for Beachner Bros, Inc. I asked Nathan Beachner if any of the manure solids or composted materials are land applied on Neosho Valley Feeders owned property. He said no.

Section 10 (Waste Management Equipment) of the NDPES permit application requires a list of equipment used in facility operations. In the 2023 renewal permit application (Attachment 6), Neosho Valley Feeders, LLC listed equipment they use for “Application”. Reported application equipment includes a T9390 NH tractor 16’ dozer, 8770 JD tractor 16’ dozer, two 6155M JDs, 8420 JD, two Cat 826M loaders, Cat 615 scraper, Kuhn Knight spreader, Harsh spreader, 14’ squeegee blade, 8’ squeegee blade, 2021 Kubota skid steer, 10’ box blade, and a 2023 10’ box blade. The list includes manure spreaders. If equipment owned by Neosho Valley Feeders is utilized to land apply solids, they may be in control of land application, which is inconsistent with the permit. Section C of the permit requires all land application fields to be sampled and included in the Nutrient Management Plan. If Neosho Valley Feeders is in control of land application, solids land application needs to be sampled and included in the NMP.

Section C of the permit requires reporting the name and address of the recipient. The address for Beachner Bros was not included in Annual Reports for 2019 to 2023, but the address was provided to KDHE via email upon request in February 2024 (Attachment 12).

Land application – liquid wastewater

Center pivots. Wastewater is land applied at seven (7) center pivots covering a total of 507 acres. An aerial map of the land application areas including surface water and each center pivot is displayed in Attachment 4. The 2023 Nutrient Management Plan (NMP) provides legal descriptions for the location of each field.

I asked Mr. Poor to describe the wastewater land application process. He said they open the valve at the pivot then turn the pump on at the waste storage pond. After they turn the pump on, they return to the pivot to visually inspect for leaks and return to the pivot for visual inspection every 3-4 hours since the pivot moves about 200 feet every few hours. Mr. Poor also said the center pivots are calibrated and maintained annually. Visual inspections during land application and annual maintenance events are not documented.

I asked Mr. Poor about general land application practices. He said they typically only apply on Circles 4 and 5 during winter since it's grass. He said they don't land apply on the day before or after it rains, or when a field is bare. Flow on each pivot is monitored with a flow meter to prevent an overapplication by volume. I observed a McCrometer flow meter installed on Pivot 6 (Photo 156, 157).

Section C of the permit prohibits land application of process wastewater closer than 100 feet to down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to groundwater or surface waters. The 100-foot setback may be substituted with a 35-foot wide vegetated buffer where land application is prohibited. The permit also allows other approved alternative practices. KDHE's review (Attachment 9) of the 2023 NMP indicates that they have not approved any other compliance alternatives.

I reviewed aerial imagery for each center pivot field to determine approximate swing arm span. In Table 3 below, I summarized areas of potential concern based on that analysis. Several center pivot arms were long enough to physically cross into the setback areas described in the NMP.

The 2023 NMP states that 100-foot setbacks from the Neosho River are used on fields for Circles 1, 2, 3, 6, & 7. The NMP depicts the setbacks in appendix site maps titled Fields Map - Aerial Photo and Fields Map - Topographic Photo. As seen in aerial imagery, the center pivot spans for Circles 1, 2, 6, and 7 extends past the 100-foot setback (**Finding 7**). The NMP does not describe actions taken to prevent land application from extending into the setback area.

As seen in aerial imagery (Attachment 4), conduits to surface waters are utilized in the Circle 1 and Circle 3 fields. Mr. Beachner confirmed that ditches are utilized in these fields in order to convey water out of the field so it does not accumulate and impact crop production. Circle 1 and Circle 3 do not have setbacks to these conduits to surface waters (**Finding 7**). The receiving stream for Circle 1 is Tributary 3 and the receiving stream for Circle 3 is Tributary 4.

As seen in aerial imagery (Attachment 4), Tributary 1 cuts through the middle of Circle 5. The northeast section of the tributary has riparian cover and is buffered from the center pivot. The southwest section flows through the irrigated area with no riparian cover (**Finding 7**).

Table 3. Land application center pivot details

Circle	Lat/Long	Approx. Span	Areas of potential concern based on aerial imagery analysis
1	37.366408° -95.132313°	1,000 ft	Center pivot span exceeds 100-foot setback for downgradient surface water, Neosho River, on southeast
2	37.360447° -95.132271°	1,000 ft	Center pivot span exceeds 100-foot setback for downgradient surface water, Neosho River, along northeast
3	37.360913° -95.139770°	1,060 ft	No setbacks around conduits to surface water
4	37.375981° -95.153708°	1,190 ft	No setbacks around potential surface water
5	37.387524° -95.138520°	1,132 ft	No setbacks around Tributary 1

6	37.387468° -95.125636°	827 ft	Exceeds 100-foot setback for downgradient surface water, Neosho River, along north boundary
7	37.370161° -95.122814°	920 ft	Exceeds 100-foot setback for downgradient surface water, Neosho River, along northeast boundary

Nutrient Management Plan. The facility contracts KLA Environmental Services, Inc. (KLA) to develop a Nutrient Management Plan every permit cycle and to update application rates annually. The current Nutrient Management Plan dated May 2023 provides maximum allowable application rates for 2023 through 2028 (Attachment 8). The May 2023 NMP was submitted to KDHE with the facility's permit renewal application on July 7, 2023. KDHE reviewed and approved the NMP in September 2023 (Attachment 9).

Section C of the permit requires the facility to conduct soil analysis at the interval listed in the approved NMP. The 2023 NMP requires fields to be sampled within 12 months prior to any application of manure or wastewater and at a minimum of every three years. Soil analysis was provided in the 2019-2023 Annual Reports for all 7 fields.

Section C of the permit requires the facility to calculate maximum allowable amounts of wastewater to be applied on each field. In NMP Annual Rates and Change 2024 (Attachment 10), KLA provides updated application rates for 2024 through 2028 on Circles 1, 2, and 6. Application rates for these fields were increased by 50%, from 1.0*P to 1.5*P.

Section E. Reporting and Recordkeeping

Operations report

Section E (Reporting and Recordkeeping) of the permit requires the facility to document visual inspections on a KDHE provided operations report form. The facility provided completed monthly operations reports for January 2021 through April 2024.

Annual report

2023 Annual Report. As documented in the 2023 annual report, the facility exported a total of 12,905 tons of manure, 1,785 tons of compost, and generated/land applied 23,908,443 gallons of wastewater. According to the 2021 to 2023 annual reports, the facility has not documented or reported any discharges from the production areas.

KDHE's review of the facility's 2020 Annual Report determined the facility over applied liquid waste on Field 4, which is not in compliance with the NMP and NPDES permit. KDHE issued a letter to Neosho Valley Feeders, LLC on June 7, 2021, documenting the over application, but no compliance actions were taken (Attachment 13).

6.0 SUMMARY

A Notice of Preliminary Findings was not provided during the closing conference of the inspection; however, findings of potential areas of concern are noted below:

Finding 1 – Uncontrolled manure and feed storage area.

Finding 2 – Weekly visual inspections of stormwater conveyances including the ditches and diversion berms and sediment basins are not formally conducted and documented.

Finding 3 – Correction of observed deficiencies in the stormwater conveyances are not documented to demonstrate the deficiency was corrected and the timeframe is adequate.

Finding 4 – Solids in Sediment Basins 1, 5, and 7 exceed one-half the depth.

Finding 5 – Exceeded maximum operating level in Waste Storage Ponds 1 and 2 from July 2-7, 2021, and June 9-23, 2022.

Finding 6 – Compost is exported but not analyzed.

Finding 7 – Exceeded setbacks from downgradient surface water and conduits to surface water for wastewater land application from Circle 1, 2, 3, 5, 6, and 7.

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Suzanne Ward
Physical Scientist

NICOLE MORAN Digitally signed by NICOLE
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Nicole Moran
Section Chief

ATTACHMENTS:

- Attachment 1 – Photographs (35 pages)
- Attachment 2 – Photo Log (6 pages)
- Attachment 3 – Aerial Map of Production Area Features with Water Flow (1 page)
- Attachment 4 – Aerial Map of Center Pivots with Spans (1 page)
- Attachment 5 – NPDES Permit KS0041726 2023 (13 pages)
- Attachment 6 – Permit Renewal Application 2023 (5 pages)
- Attachment 7 – KDHE Neosho Valley Feeders Inspection Report February 21, 2023 (18 pages)
- Attachment 8 – Nutrient Management Plan May 2023 (111 pages)
- Attachment 9 – KDHE NMP Review and Approval (4 pages)
- Attachment 10 – NMP Annual Rates and Change 2024 (45 pages)
- Attachment 11 – Operations Annual Reports by Month 2023 2024 (16 pages)
(Provided as spreadsheet and converted to PDF)
- Attachment 12 – 2019-2023 Annual Reports (73 pages)
- Attachment 13 – KDHE Response Letter to 2020 Annual Report (1 page)
- Attachment 14 – Parcel Information (1 page)
- Attachment 15 – Facility Response (6 pages)