

REPORT OF CONCENTRATED ANIMAL FEEDING OPERATION INSPECTION

At

Two Rivers Cattle Feeding Co.

(b) (6)

Triplett, Missouri 65286

(b) (6)

NPDES # MO-GS11092

ON

March 19, 2024

BY

U. S. ENVIRONMENTAL PROTECTION AGENCY

Region 7

Enforcement and Compliance Assurance Division (ECAD)

1.0 INTRODUCTION

I performed a Concentrated Animal Feeding Operation (CAFO) inspection at the Two Rivers Cattle Feeding Co., on March 19, 2024. 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

Two Rivers Cattle Feeding Company (b) (6)

Chad Duncan, Owner/Operator

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3.0 INSPECTION PROCEDURES

I contacted Mr. Duncan via telephone on March 18, 2024, and stated that I would like to perform an inspection of the Two Rivers Cattle Feeders operation on Tuesday, March 19, 2024. Mr. Duncan stated that he would be available and we agreed to meet at 1:00 pm on Tuesday, March 19, 2024. I also stated that I would have several other EPA employees with me and that the Missouri Department of Natural Resources was informed on the planned inspection. I stated that the other EPA employees would be there to observe the inspection.

Prior to entering the Two Rivers Cattle Feeding facility, I conducted a visual reconnaissance of the facility, searching for areas of concern observable from the county roads such as discharges, drainage patterns, flow directions, distance and direction of nearest perennial waters, visual condition of perennial waters, facility location and layout. **The facility is located approximately 1 mile east of Triplett, Missouri, along the west side of Hwy 11. The facility is visible from Hwy 11 and slopes toward the southwest. An unnamed tributary flows along the south side of the facility directly south of Lagoon B/C's south berm. The unnamed tributary flows west for approximately ½ mile before flowing into Salt Creek. The unnamed tributary and Salt Creek were both observed flowing at the time of the inspection. Salt Creek was identified as a perennial water per USGS topographic maps.**

I arrived at the facility at approximately 1:00 pm and met with Mr. Duncan. I presented my credentials and explained both the purpose of the inspection and the procedures I would follow during the inspection to Mr. Duncan. Mr. Duncan stated that he was the owner and operator of the facility and has operated the facility since purchasing it in 2018. I asked Mr. Duncan if the facility had a bio-security protocol and he said "no". I informed Mr. Duncan that since the facility did not have a bio-security protocol, I would be following the EPA Region VII bio-security protocol. I then made Mr. Duncan aware of his confidentiality rights and informed him that a Confidentiality Notice, which he reviewed, would be provided at the end of the inspection to make any claims. Mr. Duncan acted as the official facility representative during the inspection and provided the majority of the information pertaining to the facility operation. Mr. Duncan accompanied me during the entire inspection. After the conclusion of the inspection, Mr. Duncan provided me with electronic copies of facility records for review and provided additional waste management information during and after the inspection.

I explained to Mr. Duncan that I would be conducting the CAFO inspection under the authority of Section 308(a) of the Federal Water Pollution Control Act to evaluate the facility's compliance status with the requirements of the CWA. I explained that the inspection would consist of a review of facility operations, required records, waste generation and management practices, and a visual inspection of the facility. I stated that I would document my findings and observations by making photocopies, taking photographs and/or videos, and obtaining statements from facility staff.

I conducted this inspection in accordance with the most current procedures described herein and the following EPA Region VII Standard Operating Procedures (SOPs), unless otherwise noted:

I completed my inspection and I summarized the findings and recommendations with Mr. Duncan during the exit briefing. No samples were taken during the inspection, and no Notice of Preliminary Findings (NOPF) was issued during the inspection. Twenty-three photographs were

taken during the inspection. See attachment 1 for the digital photograph chain of custody/photo log and photos #1 - #23. See attachment 2 for the facility layout, photo locations and direction taken.

4.0 FACILITY DESCRIPTION

4.1 Facility Operations

The Two Rivers Cattle Feeders is located approximately 1 mile east of Triplett, MO, on the west side of Missouri Highway 11. The facility's physical address is (b) (6), Triplett, MO 65286. The legal description for the facility is the SW¼ of Section 9, in Township 54N, Range 20W, in Chariton County, Missouri, within the Salt Creek watershed.

Mr. Duncan stated that the facility receives feeder calves at a weight between 350 -500 pounds. The calves are then fed out to approximately 850 pounds before they are sent to a finishing operation to be fed out to approximately 1,400 pounds. Mr. Duncan stated that a few of the feeder cattle are kept and fed out to finished weights. Mr. Duncan stated that the facility has four full time employees for the operation. Mr. Duncan stated he has owned and operated the facility since 2018, and that there were approximately 2,658 cattle at the facility at the time of the inspection. The facility consists of two lagoons (Lagoon A and B/C) and one secondary containment structure with a total drainage area of approximately 78 acres. The open feeding pens consist of approximately 27 acres. There are also three confinement barns that contain cattle. The entire facility generally slopes from the northeast to the southwest. The facility utilizes 28 open feeding pens and three confinement barns, process wastewater from open lots C1- C28 flow southwest through a series of ditches, and a sediment basin and into Lagoon B/C. Process wastewater from confinement pens B21 – B39 is piped underground into a settling basin before discharging into Lagoon B/C. Process wastewater from confinement pens B41- B58 is pumped into Lagoon A. Process wastewater from open lots E1-E6 flows through a series of ditches and into Lagoon A. Process wastewater from the feedstock storage area flows into a sedimentation basin then into Lagoon B/C. Process wastewater from the mortality compost area flows southwest into Lagoon B/C. See attachment 2 for an ariel map showing the layout of the facility.

According to Mr. Duncan, process wastewater collected at the facility is pumped out of Lagoon B/C or out of the secondary containment structure and land applied via a center pivot irrigation system that is located west of the facility. Mr. Duncan stated that manure solids are removed from the open feeding pens on an as needed basis and either land applied on fields owned by the facility. He stated that most manure solids are stockpiled in the fields until land application conditions are acceptable. As stated above, the facility composts mortalities on site.

4.2 CAFO Status

Two Rivers Cattle Feeders was issued a permit (MO-GS11092) by the Missouri Department of Natural Resources on July 1, 2023 (attachment 3). The permit is set to expire on June 30, 2028.

A review of facility records and statements made by Mr. Duncan revealed that Two Rivers Cattle Feeders has confined at least 1,000 cattle for more than 45 days during the last 12-month period. Mr. Duncan stated that the number of cattle at the facility at the time of the inspection was

approximately 2,658. After the completion of the inspection, I received the cattle inventory for the past 12 months and it indicated that over 1,000 animals have been at the facility for the past 12 months (attachment 4). The visual inspection of the confinement lots also revealed no vegetative cover in any of the lots that confined cattle (see photos 1 - 2). As a result of my observations, I determined that Two Rivers Cattle Feeders meets the definition of a large CAFO as it is defined in Title 40 of the Code of Federal Regulations, Part 122.23.

4.3 Regulatory History

The Missouri Department of Natural Resources (MDNR) conducted an investigation of discharge from the facility on May 28, 2019 (attachment 5). The investigation concluded that effluent from the secondary containment structure was discharging by overflowing the west berm. MDNR issued a Letter of Warning to the facility on June 27, 2019, in response to the May 2019 investigation (attachment 4). No other follow up from MDNR or the facility was noted in the file request that I made to the MDNR prior to the EPA inspection.

5.0 FINDINGS AND OBSERVATIONS

I conducted an inspection on March 19, 2024, to determine if Two Rivers Cattle Feeders is in compliance with the CWA and if the LWCF were capturing all process wastewater and not discharging to a water of the United States.

The weather conditions at the time of the inspection were sunny and mild (60°F). I met with Mr. Duncan, discussed operational processes being performed at the facility, performed a visual inspection of the facility, and reviewed on site records being maintained by the facility. Two Rivers Cattle Feeders had approximately 2,658 head of feeder cattle on site at the time of the inspection. Two Rivers Cattle Feeders has been operating as a large CAFO since 2018 and must control all process waste water discharges including the open confinement lots, manure stockpile/storage areas and feed stock storage areas.

During the visual inspection, I observed Lagoons A, B/C, and the secondary containment structure (see photos 6, 11-13 & 19-20). The process wastewater in Lagoon B/C was observed having approximately 0 feet of freeboard. I observed that process wastewater was actively overflowing the lagoon berm in the northwest corner of the lagoon and entering the secondary containment structure (photos 11-12). I also observed that process wastewater was nearly overflowing the south berm in multiple locations. I did not observe a freeboard or lagoon depth measuring device in Lagoon B/C. *Standard Condition 2.i.3 of the permit requires that all open surface liquid impoundments have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.* The facility is also required to record the liquid level of each storage structure on a weekly basis. At the conclusion of the inspection, I requested that the facility submit the liquid levels for Lagoon B/C for the past 12 months. Mr. Duncan provided the records via email on April 8, 2024 (attachment 6). Lagoon B/C is listed as manure source 1 in the records. According to the records provided, the liquid level has been at the 1.0 foot level or less since March 2024.

At the time of the inspection, there was approximately 0 feet of freeboard in Lagoon A. Process wastewater was actively overflowing the west berm and into the secondary containment structure

(photos 19 - 20). I did not observe a measuring device in Lagoon A at the time of the inspection. *Standard Condition 2.i.3 of the permit requires that all open surface liquid impoundments have a depth marker which clearly indicates the minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event.* After the conclusion of the inspection, Mr. Duncan provided via email the liquid level records for Lagoon A for the past 12 months (attachment 6). Lagoon A is listed as manure source 2 in the records. According to the records provided, the liquid level has been at the 2.0 foot level since March 18, 2024.

At the time of the inspection there was approximately 2 ½ feet of freeboard in the secondary containment structure (photo 16). According to the facility's permit, the secondary containment structure is used for emergency purposes during chronic rain events. I did observe that the secondary containment structure had a measuring device. According to the permit, the secondary containment structure has approximately 365 days of storage. After the conclusion of the inspection, Mr. Duncan provided via email the liquid level records for the secondary containment structure for the past 12 months (attachment 6). The secondary containment structure is listed as manure source 3 in the records. According to the records provided the liquid level has been at the 2.5 foot level since March 2024.

Standard requirement 7 of the permit requires that the facility keep records for all land application that has occurred for the past 5 years. Records include:

- Expected and actual crop yields
- The date(s) and rates of manure, litter, process wastewater, or mortality by-product applications to each field
- Weather conditions at time of application and for twenty-four (24) hours prior to and following application
- Test methods used to sample and analyze manure, litter, process wastewater or mortality-by-products, and soil
- Results from manure, litter, process wastewater or mortality-by-products, and soil sampling
- Explanation of the basis for determining manure application rates
- Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, process wastewater or mortality by-products
- Total amount of nitrogen and phosphorus actually applied to each field for each application, including documentation of calculations for the total amount applied
- The method used to apply the manure, litter, process wastewater or mortality-by-products
- Record of runoff from the land application field that resulted in a direct release off of the CAFO property or a discharge to waters of the state, and the response
- Date(s) of manure application equipment inspection.

During and after the inspection, I requested that Mr. Duncan provide the land application information for the facility for the past two growing seasons. Mr. Duncan provided some but not all the land application information that is required to be kept as outlined above, via an email on April 8, 2024 (attachment 7).

As a condition of the permit, Two Rivers Cattle Feeders is required to have a Nutrient Management Plan (NMP) and perform analyses on process wastewater and manure solids, and

analyses of soil in the fields the facility utilizes for process wastewater and manure solids application. After the completion of the inspection, I requested a copy of the NMP. As of the date of this report, I have not received a copy.

The permit requires that an annual report be submitted to the state by January 28th of each year. After the completion of the inspection, I requested Mr. Duncan provide the 2021 and 2022 annual reports. I received a copy of the 2021 Annual report but not the 2022 report (attachment 8). Mr. Duncan reported that approximately 19.6 million gallons of process wastewater was applied to fields within the NMP.

According to Mr. Duncan, mortalities are composted on site. During the inspection, I observed the mortality management area (photos 8 & 10). I observed several uncovered mortalities. During precipitation events, process wastewater from the mortality management area flows southwest through a sediment basin and into Lagoon B/C.

As stated above, an unnamed tributary flows west along the south side of the facility directly south of Lagoon B/C. The unnamed tributary flows approximately 0.75 miles before entering Salt Creek west of the facility. I asked Mr. Duncan how many months in an average precipitation year the unnamed tributary has flowing water in it. Mr. Duncan stated the unnamed tributary has been dry lately due to the lack of rain, however, it always has a little bit of water in it. The unnamed tributary and Salt Creek were both observed flowing at the time of the inspection. I completed an EPA Stream Characteristics and Water Nexus Form for the unnamed tributary and Salt Creek after I concluded the facility inspection (attachment 9 and photos 14-15 & 22 - 23).

6.0 SUMMARY

The Two Rivers Cattle Feeders facility is located approximately 1½ miles east of Triplett, Missouri, on the west side of Hwy 11.

At the time of the inspection, Lagoons A and B/C were overflowing into the secondary containment structure located west of the lagoons.

There were no observable liquid measuring devices in either Lagoon A or B/C at the time of the inspection.

Lagoons A and B/C were not maintaining the appropriate amount freeboard as required by the permit at the time of the inspection.

The facility is required to keep land application records for a minimum of 5 years. During the inspection, I requested the land application records for the previous two growing seasons. I did not receive all documents that the permit requires to be kept.

The facility is required to provide a copy of the NMP upon request. To the date of this report, a copy of the NMP has not been received.

The facility is required to submit an annual report by January 28th for the previous year. During and after the conclusion of the inspection I requested copies of previous annual reports, however only received the 2021 annual report.

Mortalities need to be properly managed at the facility. Mortalities should be completely covered to not attract vectors and other animals.

**JOSEPH
HEAFNER**
Joe Heafner
Life Scientist

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ATTACHMENTS:

1. Digital Photograph Image Chain of Custody/Photo Log and Photos #1 - #23 (26 pages)
2. Facility Satellite Photos/Maps (4 pages)
3. NPDES permit, MOGS11092 (26 pages)
4. Facility Cattle Inventory (1 page)
5. 2019 MDNR investigation (10 pages)
6. Lagoon Levels for (6 pages)
7. Land Application Records (18 pages)
8. 2021 Annual Report (1 page)
9. EPA Stream Characteristics and Water Nexus Form (2 pages)