

**CWA COMPLIANCE EVALUATION INSPECTION REPORT
U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

Purpose:

Compliance Sampling Inspection

Facility:

Schwieterman Farms
4339 County Road 716A
Celina, Ohio
Mercer County, Ohio
40.476569, -84.526512

NPDES Permit Number: No Permit.

ICIS Tracking Number: OHA000048

Date of Inspection: 4/21/2023

U.S. Environmental Protection Agency (EPA) Representatives:

Anne Marie Vincent, EPA	440-250-1720	vincent.annemarie@epa.gov
Megan Zale, EPA	440-250-1711	zale.megan@epa.gov
Cheryl Burdett, EPA	312-886-1463	burdett.cheryl@epa.gov

Facility Representatives:

Charles Schwieterman IV, Owner/Operator	419-733-4722
Charles Schwieterman V, Operator	419-733-8457

Inspector Name and Title: Anne Marie Vincent, Life Scientist, Water Enforcement and Compliance Assurance Branch, Multimedia Section

Inspector Signature/ Date:

ANNE VINCENT  Digitally signed by ANNE VINCENT
Date: 2023.06.27 09:36:48 -04'00'

Approver Name and Title: Brooke Furio, Multimedia Section Supervisor, Water Enforcement and Compliance Assurance Branch, Multimedia Section

Approver Signature/ Date:

Furio, Brooke  Digitally signed by Furio, Brooke
Date: 2023.06.27 10:21:14 -04'00'

1. BACKGROUND

The purpose of this report is to describe, evaluate and document Schwieterman Farms compliance with the Clean Water Act (CWA) at its Celina, Ohio facility on April 21, 2023. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

Schwieterman Farms is a medium dairy animal feeding operation with approximately 270 mature milking cows, 40 dry cows, and 8 heifers. Calves are picked up weekly from the farm to be raised elsewhere. Prior to the inspection, EPA had observed potential areas of discharge at Schwieterman Farms to waters of the United States, namely Prairie Creek, in aerial photographs.

From aerial photographs it appears that any uncontrolled discharges from the facility would flow into Prairie Creek. Prairie Creek flows north through the production area, dividing the farm into east and west sides. The east side contains the bulk of the production area, with the Silage Storage Pad and Manure Lagoon located on the west side of Prairie Creek. Prairie Creek flows approximately 2.5 miles north into the west end of Grand Lake Saint Marys. Outflow from Grand Lake Saint Marys' western spillway drains to Beaver Creek which is a tributary of the Wabash River. The Wabash River is a tributary of the Ohio River. Prairie Creek, Grand Lake Saint Marys, Beaver Creek, Wabash River, and the Ohio River are all waters of the United States. The Ohio River is a traditional navigable waterway.

2. SITE INSPECTION

Table 1: Site Entry and Opening Conference

Arrival Time:	9:30 a.m.
Temperature:	54° F
Precipitation:	Light Drizzle - Intermittent
Presented credentials?	Yes
Credentials presented to whom and at what time?	EPA inspectors presented credentials at approximately 9:40 a.m. to Charles Schwieterman IV (Owner/Operator) and his son Charles Schwieterman V (Operator) as they greeted EPA in a gravel parking area near the central driveway across from the residence at the farm.
The United States Environmental Protection Agency (EPA) arrived on April 21, 2023, at Schwieterman Farms in Mercer County, Ohio at approximately 9:30 a.m. EPA inspectors donned disposable boot covers. At approximately 9:40 a.m., EPA inspectors were greeted by Mr. Charles Schwieterman IV (Owner/Operator) and his son Charles Schwieterman V (Operator). EPA inspectors (Anne Marie Vincent, Cheryl Burdett, and Megan Zale) presented their credentials to Mr. Schwieterman IV and Charles Schwieterman V. After the presentation of credentials, EPA followed the Schwietermans to the dairy office and EPA began the opening conference to explain the purpose of the inspection and EPA's authority to conduct the	

inspection at the animal feeding operation. After the presentation of credentials, EPA followed the Schwietermans to the dairy office and EPA began the opening conference to explain the purpose of the inspection and EPA's authority to conduct the inspection at the animal feeding operation. EPA's authority comes from Section 308 of the Clean Water Act. Mr. Charles Schwieterman IV and Charles Schwieterman V were present for and participated in the inspection interview, facility walkthrough and closing conference during the inspection. EPA confirmed the number of dairy cows included 270 mature milking cows, 40 dry dairy cows, and 8 heifers. Calves are not raised on site. Calves are sent off site weekly to be raised elsewhere. There are no bulls or steers on site. EPA explained that the inspection would include questions from an inspection checklist, a facility walkthrough to observe facility operations and structures to determine compliance with the Clean Water Act and a closing conference. EPA explained that if a discharge was observed during the walkthrough, samples would be collected. EPA advised the Schwietermans that if samples were collected, they could request split samples at that time.	
If photographs or documents were taken, does the facility consider any to be Confidential Business Information (CBI)?	No, per Mr. Schwieterman IV.
Which information does the facility consider to be CBI?	EPA advised Mr. Schwieterman IV that if he determined anything photographed on the site during the facility walkthrough or documents reviewed were CBI, to inform EPA. Mr. Schwieterman IV did not make a claim of CBI.
EPA vehicle parked in approved location.	Yes. Mr. Schwieterman IV stated that EPA's vehicles were parked in an appropriate location on site.
Location where EPA vehicle was parked?	Gravel area outside of the production area, to the east of the abandoned milking parlor, and across the driveway from the residential home.
Disposable boots worn?	Yes.
Other bio-security measures taken (state vet contacted, etc.):	The Ohio State Veterinarian was contacted prior to the inspection to confirm there were no local outbreaks or biosecurity concerns in the area.

2.1 Records Review (The following Information Review and Records Review tables reflect information provided during the inspection interview and during the walk-through of the facility, unless otherwise noted.)

Table 2: Documents

Checklist(s) Used
R5 CAFO Inspection Checklist
Facility Documents Reviewed:
None available for review.

Table 3: Facility Description

Type of Animal	Number of Animals	Capacity	Type of Confinement
Milking Cows	270	300	Freestall Barn
Dry Cows	40	50	Approximately 25 pen pack stalls and 25 freestalls at the west end of the milking parlor barn.
Heifers	8	Included in dry cow number above	Freestalls in milking parlor barn and Heifer Barn.
Calves	0	Not Applicable	Picked up weekly to be raised elsewhere.
Bulls	0	Not Applicable	Not Applicable.
Minimum Number of Animals in previous 5 years:			Not known.
Maximum Number of Animals in previous 5 years:			Not more than 350 animals per Mr. Schwieterman IV.
Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:			Approximately 350, according to Mr. Schwieterman IV.
Amount of Liquid Manure Generated per year:			Mr. Schwieterman IV estimated 2 million gallons.
Amount of Solid Manure Generated per year:			Mr. Schwieterman IV was not sure of this value, but stated that the SWCD would have the land application records to verify the amount.
Does the facility have an NPDES Permit?			No.
SIC or NAICS code:			0241
CAFO Designation/Defined Date (If a designated CAFO)			Not Applicable.
Do animals have direct access to WOUS?			No.
Are crops, vegetation, forage growth, or post-harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are kept?			No.
What is the area (acres) of the production area?			Approximately 16 acres. According to Charles Schwieterman V, this includes the residential home/yard, production area, Manure Lagoon and Silage Storage Pad.
What is the area (acres) of the pasture on site?			There is no pasture.
How many employees (not counting family members)?			3 non-family employees to assist with milking operations.
Other facilities under common ownership (name and address):			
According to Mr. Schwieterman IV, the facility also has a heifer farm on Guadalupe Road in Celina, Ohio that has approximately 100 heifers. The heifer farm and this dairy farm share manure spreading equipment.			

Table 4: Livestock Waste Storage

Type of Storage	Storage Capacity	Type of Liner	Depth Markers Present	Last Date Waste Was Removed	Amount of Waste Removed	Days of Storage
Manure Lagoon (Original construction late 1980s/early 1990s and 2019/2020 lagoon expansion designed by Mercer County Soil and Water Conservation District (SWCD))	4 million gallons (gals)	Compacted Clay	None.	Fall 2022 (October/ November) Summer 2022 (July/ August)	Fall 2022 450,000 gals Summer 2022 1.8 million gals	1.5 years
Manure Storage Barn (Designed by Mercer County SWCD – Facility had it built it larger than the originally recommended size)	Unknown	Concrete Floor	Not Applicable	Dates not known.	Volume not known.	4 – 5 months
Flush Flume Reception Pit	14'x14'x12' (2,352 ft ³)	Concrete	Not Applicable	Once daily pumped to lagoon.	Unknown.	Unknown
Records at site of storage structure design?				Mr. Schwieterman IV did not have as-built drawings for the storage structures available on site for review.		
Is manure stored for the short term? If yes, describe where it is stored, how it is drained and where it drains to.				Mr. Schwieterman IV stated there are no short-term storage areas for manure.		
Are records kept of the level of manure in the storage structures?				Mr. Schwieterman IV stated that they do not keep records of manure levels in storage structures as it is not required by the Comprehensive Nutrient Management Plan (CNMP).		
When was the last time a storage structure was emptied, either partially or completely?				Mr. Schwieterman IV stated that manure was last pumped out of the Manure Lagoon in the fall of 2022 (October/ November). He did not know the dates for the last time pen pack manure was removed from the Manure Storage Barn.		

What amount of manure or process wastewater was removed the last time the storage structure was emptied, either partially or completely?	Mr. Schwieterman IV and Mr. Schwieterman V estimated that the facility had pumped approximately 450,000 gallons of manure out of the Manure Lagoon in the fall (October/November) of 2022 (50 acres x 9,000 gallons per acre). Over the summer of 2022 (July/August), they estimated that the facility pumped approximately 1.8 million gallons of manure from the Manure Lagoon (150 acres x 12,000 gallons per acre).
Do the facility personnel inspect and keep records of all diversion devices?	Operators are out in the production area routinely during daily operations to visually observe operating conditions, however, no formal records are kept of these daily walkthroughs.
Do the facility personnel inspect and keep records of all impoundments?	Operators are out in the production area routinely during daily operations to visually observe operating conditions, however, no formal records are kept of these daily walkthroughs.
Do the facility personnel inspect and keep records of all the water lines?	Operators are out in the production area routinely during daily operations to visually observe operating conditions, however, no formal records are kept of these daily walkthroughs.
Do the facility personnel perform routine visual inspections and keep records of the production area?	Operators are out in the production area routinely during daily operations to visually observe operating conditions, however, no formal records are kept of these daily walkthroughs.
Does the waste storage system have a managed outfall or discharge point?	There are no designed and managed outfalls or discharge points in the waste storage system.
Has the facility had any documented discharges of livestock waste to surface water in the past year?	Mr. Schwieterman IV stated that the facility has not had any documented discharges of livestock waste to surface waters in the past year.
Are there safety devices installed around any manure storage ponds? (Barriers at the end of manure push off platforms, fences around pond, signage.)	No. There are no safety devices such as fencing installed around the Manure Lagoon.
Additional Information:	No.

Table 5: Livestock Waste Management

Describe the way manure is collected and disposed of at the facility:	
In the Freestall Barn, a skid steer loader with a rubber bucket attachment is used to push manure from the freestall lanes to the flush flume. The flush flume system flows via gravity into the flush flume reception pit. Once a day a manual switch is activated by farm personnel to pump the contents of the flush flume reception pit to the Manure Lagoon. There is also a pump to agitate the contents of the flush flume reception pit and a pump to recirculate process wastewater from the reception pit through the flush flume line. Additional back-up generator units are available on site to operate the pumps for the reception pit in the event the electricity to the pumps goes out. Any solids that build up off the edges of the flush flume trench in the barns are removed using the skid steer loader and the solids are placed in the Manure Storage Barn. The holding area off of the west side of the Milking Parlor has an automatic squeegee system that scrapes manure solids from the floor to the flush flume. The cow lane on the south side of the holding area is scraped with the skid steer and manure solids are placed in the Manure Storage Barn.	
Describe the way used bedding is collected and disposed of at the facility:	
The farm uses straw and bean fodder for bedding. According to Mr. Schwieterman IV, straw bedding is used for milking cows and bean fodder and/or straw is used as bedding for heifers, calves, and dry cows. A skid steer loader bucket scoops up used bedding and moves it to the Manure Storage Barn. The movement of the solid manure/pen pack/used bedding occurs under roofed lanes within and between the barns. As conditions permit, used bedding/pen pack/manure solids are land applied and incorporated into the land application fields.	
Are mortality records kept?	Yes. Ear tag numbers are used to track animals in the computer system for the farm, this includes the documentation of mortalities. The facility also maintains the bills of lading from the renderer when mortalities are pick-up on site for removal.
Describe the way mortalities are managed at the facility:	
Calve mortalities are composted on site in the Manure Storage Barn. Cow mortalities are hauled off site by a rendering company. Schwieterman Farms uses Standard Fertilizer out of Indiana for rendering services. Standard Fertilizer typically provides same day pick up for mortalities once the farm calls for service.	
Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:	
According to Mr. Schwieterman IV, forages/silage is stored on the Silage Storage Pad. The piles are covered with plastic sheeting that is held in place with cut rubber tires (on top of the pile) and crushed limestone on top of the plastic along the bottom edges of the piles. The Silage Storage Pad is a concrete pad with no curbing along the sides of the pad. Grass buffers are in place on the west, east and south sides of the Silage Storage Pad. The field to the north of the Silage Storage Pad is at a slightly higher gradient than the Silage Storage Pad and was planted with wheat at the time of the inspection. The Silage Storage Pad is generally sloped to the east and southeast to a perforated drain tile that collects liquids from along the eastern edge of the pad and directs liquid towards a general collection area at the southeast corner of the Silage Storage Pad. The general collection area at the southeast corner is a depression on the ground	

surface that has an inlet tile that directs any leachate or stormwater run-off via gravity through an underground tile into the Manure Lagoon. Corn and soybean feed is stored in grain bins. According to Mr. Schwieterman IV, housekeeping is conducted around the grain storage structures to prevent spilled feed products from contacting stormwater. Stormwater from around these grain bins along the driveway follows the natural gradient of the driveway and then flows southwest off the driveway, past the western-most corn grain bin and into Prairie Creek. EPA did not observe evidence of manure or corn along the run-off pathway or on the bank of the creek where stormwater would enter the creek. Additional supplements and additives to the feed are stored within the commodity barn (under roof) and would not be in contact with precipitation.	
What type of method is used to provide drinking water for the animals? (Drinkers with float system? Nipple waters? If nipple waters, is backflow prevention installed?)	2 on-site water wells provide drinking water for the animals. The farm uses large water fountain design waterers on a float system to provide drinking water.
Describe the way spilled drinking water is collected and disposed of at the facility:	
Any spilled drinking water would flow to or be scraped into the flush flume system which directs flow to the flush flume reception pit. The reception pit is pumped to the Manure Lagoon.	
Describe the way mist cooling water is collected and disposed of at the facility:	
The farm uses fans and sprinklers in their mist cooling system. Any residual mist from the fans and sprinklers would end up on the barn floor where it would be scraped into the flush flume system. The flush flume system terminates at the flush flume reception pit which is pumped to the Manure Lagoon. Any mist cooling water used in the pen pack areas would end up in the pen pack material which is removed as solid manure and stored in the Manure Storage Barn.	
Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:	
According to Mr. Schwieterman, small teat dip containers are used in the Milking Parlor. Copper sulfate is used for foot baths. The foot bath is located in the cow lane between the milking parlor barn and the Freestall Barn. The farm has a designated chemical room where all chemicals are stored. There is a floor drain in the chemical room which drains to the flush flume reception pit that is pumped to the Manure Lagoon. The chemical room is adjacent to the dairy office.	

Describe the way water that has been used to wash/flush barns is collected and disposed of at the facility:	
Any water used for washing or flushing in the milking parlor holding area or the Freestall Barn drains into the flush flume system that flows via gravity to the flush flume reception pit which is manually pumped once a day to the Manure Lagoon.	
Describe where water comes from that is used to clean and/or flush. (Wells, city, etc.)	
All water used for drinking water, cleaning and/or flushing comes from 2 on-site water wells.	
If a dairy, describe how process wastewater from the plate cooler water is collected and disposed of at the facility:	
According to Mr. Schwieterman IV, used non-contact plate cooler water is stored in a holding tank and then it is used as wash water in the Milking Parlor. Collection and disposal of the wash water after use is described below.	
If a dairy, describe how process wastewater from the cleaning of the milking parlor is collected and disposed of at the facility:	
According to Mr. Schwieterman IV, the wash water (process wastewater) that is generated from cleaning the Milking Parlor, drains into the floor drains in the parlor. The floor drains are plumbed to drain via gravity to the flush flume reception pit. Process wastewater and manure in the flush flume reception pit is manually pumped to the Manure Lagoon once a day.	
If a dairy, describe how process wastewater from the cleaning of the milk tanks is disposed of at the facility:	
According to Mr. Schwieterman IV, process wastewater from cleaning the milk tanks drains to floor drains which flow via gravity to the flush flume reception pit.	
If a dairy, how many times per day are cows milked?	2 times per day.

Table 6: Land Application and Disposal of Manure and Process Wastewater

Does the facility perform and keep records of the manure testing?	Yes, according to Mr. Schwieterman IV and Charles Schwieterman V, manure sampling and analysis is completed according to the CNMP and records of the testing are maintained.
When was the last time a sample was taken of the manure and/or process wastewater?	The last manure sample was taken 2 years ago according to the operators.
Describe the process to take the manure and/or process wastewater sample.	According to Mr. Schwieterman IV and Charles Schwieterman V, the manure sample is collected while manure is being pumped from the lagoon for drag line application. There is a spigot on the pumper that the pumping operator can open to obtain a manure sample. The sample is sent to

	Brookside Laboratories, Inc. in New Bremen, Ohio for analysis.
Number of acres available for land application:	Mr. Schwieterman IV stated that the farm owns approximately 900 acres that are available for land application. The farm has an agreement in place with a neighbor giving the farm access to an additional 100 acres for land application. According to Mr. Schwieterman IV, all acres are accounted for in the CNMP.
Are land application records kept?	Mr. Schwieterman IV stated that the facility maintains land application records as required by the farm's CNMP.
Who applies the manure and process wastewater to the fields?	The facility uses their own equipment to apply manure to the fields. For fields that are further away from the dairy, they hire a custom applicator to transport the dairy's manure to those fields, but the dairy conducts the actual land application. For fields closer in proximity to the dairy, the facility will transport the manure/wastewater to the fields for land application.
Are weather conditions at time of application kept? (24 hours before – 24 hours after)	Mr. Schwieterman IV stated that the weather forecasts are printed, and the land application information is documented on the back side of the printed weather forecast.
Does the facility perform and keep records of the soil testing?	Not discussed during inspection interview, not part of federal requirements for a medium sized facility.
Is manure transferred off-site to another party?	No.
Are manure transfer records maintained?	Not Applicable.
Do facility personnel perform periodic inspection of land application equipment?	Not discussed during inspection interview, not part of federal requirements for a medium sized facility.

Table 7: Receiving Surface Waters

Describe the surface flow pathways:	
Any uncontrolled discharges from the facility would flow into Prairie Creek. Prairie Creek flows approximately 2.5 miles north into the west end of Grand Lake Saint Marys. Outflow from Grand Lake Saint Marys' western spillway drains to Beaver Creek which is a tributary of the Wabash River. The Wabash River is a tributary of the Ohio River.	
How many months out of the year is there flow in the nearest surface water pathway:	According to Mr. Schwieterman IV, Prairie Creek has a constant flow 12 months out of the year, although at times flow can be very low during dry periods. He has never seen it run dry.
Are there any stormwater pathways entering the facility?	No stormwater pathways were observed entering the facility production area from locations outside the facility. There is a grassed swale that runs along the southern property line of the Schwieterman Farm. This swale is tributary to Prairie Creek. Stormwater drainage in the swale originates from the agricultural field on the east side of County Road 716A. Flow runs west through a culvert under the road, into this grassed swale along the Schwieterman Farm's southern property line and discharges to Prairie Creek.
Are there any clean water ponds on site?	No.
What is the name of the first waterway that is identified as a Traditional Navigable Water (TNW) for surface flow from the facility?	Ohio River.
Is the surface water pathway nearest to the facility considered to be ephemeral, intermittent, or perennial?	Perennial waterway.
Has the surface water pathway nearest to the facility been assessed for water quality?	Prairie Creek has not been assessed for water quality as an individual waterbody. However, according to available data from mywaterway.epa.gov , Prairie Creek is included in the Grand Lake Saint Mary Assessment Unit ID OH051201010204, and Grand Lake Saint Mary has been assessed for water quality. Grand Lake Saint Mary is a 303(d) listed impaired water. The EPA Waterbody Report for this watershed (https://mywaterway.epa.gov/waterbody-report/21OHIO/OH051201010204/2022) lists impairments for the following assessment categories that do not meet water quality standards or thresholds: aquatic life-modified warmwater habitat (including impairments due to habitat alterations, nitrite/nitrate as nitrogen levels and

	total phosphorus levels); human health-fish consumption (PCBs in fish tissue); recreation-primary contact impairment due to <i>Escherichia coli</i> ; and, water supply - public drinking impairment for algae.
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Table 8: Nutrient Management Plan

NMP on site?	The facility has a comprehensive nutrient management plan (CNMP) for the farm. A copy of the CNMP was not available on site to review. Mr. Schwieterman IV stated that the Mercer County SWCD office would have a copy of the CNMP and the land application records that are routinely submitted by the farm.
Date NMP Submitted:	Mr. Schwieterman IV was unsure of the date of the original CNMP, but stated that the original CNMP was developed prior to 2010.
Planner Name/Company:	Mr. Schwieterman IV stated that a consultant from Van Wert, Ohio developed the original CNMP, but he could not recall the name of the consultant. Subsequent updates have been handled through the Mercer County SWCD office.
Date that the NMP was last updated:	Mr. Schwieterman IV and Charles Schwieterman V were unsure of the exact date of the last update, but stated that the most recent update was within the last 2 years, since the requirement is that CNMPs have to be updated every three years.
Storage Description:	A copy of the CNMP was not available for review on site.
Amount of Manure Generated:	A copy of the CNMP was not available for review on site.
Capacity of Storage:	A copy of the CNMP was not available for review on site.
Duration of Storage:	A copy of the CNMP was not available for review on site.
Amount of Spreadable Land:	A copy of the CNMP was not available for review on site.
Mortality Management Plan:	A copy of the CNMP was not available for review on site.
Clean Water Diversion System:	A copy of the CNMP was not available for review on site.
Direct Contact Prevention Plan:	A copy of the CNMP was not available for review on site.
Chemical Management Plan:	A copy of the CNMP was not available for review on site.
Conservation Practices:	A copy of the CNMP was not available for review on site.
Manure Testing Protocols:	A copy of the CNMP was not available for review on site.
Soil Testing Protocols:	A copy of the CNMP was not available for review on site.
Land Application Protocols:	A copy of the CNMP was not available for review on site.
Additional NMP comments:	A copy of the CNMP was not available for review on site.
Does the NMP reflect the current operational characteristics?	According to Mr. Schwieterman IV and Charles Schwieterman V, the current operational characteristics are accurately reflected in the CNMP.
Are the number of acres owned/leased consistent with what is listed in the NMP?	According to, Mr. Schwieterman IV and Charles Schwieterman V, the current number of owned/leased acres is consistent with the CNMP.

Table 9: Land Application Records (details of the records reviewed)

Fields available for application this year:	Records not reviewed during inspection.
Timing limitation on fields:	Records not reviewed during inspection.
Annual manure analysis for N and P	Records not reviewed during inspection.
Soil tests for fields (for P) less than 5 years old?	Records not reviewed during inspection.
Inspection of land application equipment documentation:	Records not available to review.
Crop:	Records not reviewed during inspection.
Application Rate:	Records not reviewed during inspection.
Crop Yield Goals:	Records not reviewed during inspection.
Timing of land application:	Records not reviewed during inspection.
Method of land application:	Records not reviewed during inspection.
Additional land application information:	Records not reviewed during inspection.

Table 10: Facility Records (details of the records reviewed)

Diversion devices:	Records not kept. No records available for review.
Impoundments:	Records not kept. No records available for review.
Depth marker observations:	Records not kept. No records available for review, no depth markers present in lagoon.
Water Lines:	Records not kept. No records available for review.
Mortality handling:	Rendering service – Standard Fertilizer out of Indiana. Records kept per CNMP. Records not immediately available for review.
Storage Structure Design:	Mr. Schwieterman IV stated the as-built drawings were not available on site.
Overflow records:	Not Applicable.
Crop Yields:	Records not reviewed.
Land Application Dates:	Records kept per CNMP. Records not available for review.
Weather Conditions at time of application (24 before-24 after):	Records kept. Records not available for review.
Test Methods for Manure Testing:	Records kept per CNMP. Records not available for review.
Test Methods for Soil Testing:	Records not reviewed.
Manure Test Results:	Records kept. Records not reviewed.
Soil Test Results:	Records not reviewed.
Calculations of N and P applied:	Records not reviewed.
Application Methods:	Records kept per CNMP. Records not reviewed.
Application Equipment Inspection Dates:	Records not reviewed.

Table 11: NPDES Permit

Type of permit (General, individual)	No Permit.
Is a copy of the permit on site?	Not Applicable.
Date that the permit was issued:	Not Applicable.
Date that the permit will expire:	Not Applicable.
Permitted number of animal units:	Not Applicable.
Does the permit contain a compliance schedule? If yes, provide a detailed description of the requirements and the status.	Not Applicable.
Have there been any changes made to the production area since the permit was issued? If yes, provide a detailed description.	Not Applicable.
Are there any practices in the permit that are not being done at the facility? (Records kept, inspections performed, etc.)	Not Applicable.

2.2 Walkthrough of the Facility

After completing the initial inspection checklist questions regarding general facility information, EPA started the walkthrough of the production area and Prairie Creek at approximately 10:50 a.m. ET with Mr. Schwieterman IV and Charles Schwieterman V. The southern barn houses the dairy office, chemical storage room, Milking Parlor, holding area for the Milking Parlor, a cow lane, and the pen pack area for dry cows. The walkthrough started in the dairy office and continued through the chemical storage area and on to the Milking Parlor (Photograph 1:DSCN4167). Mr. Schwieterman IV then walked EPA down the cow lane adjacent to the holding area (Photograph 2:DSCN4168) to the west end of the barn which houses the pen pack area for dry cows. EPA observed the pen pack area for dry cows as well as the automatic squeegee mechanism used to scrape manure from the floor of the holding area for the Milking Parlor.

From the west end of the southern barn, Mr. Schwieterman IV directed EPA through the covered cow lane that connects the southern barn with the Freestall Barn. EPA observed the copper sulfate foot bath located in the covered cow lane. EPA observed the freestall areas of the Freestall Barn and walked to its west end where there is a roof over the equipment turn around area at the end of the freestall lanes to keep all activities enclosed under roof. EPA observed the flush flume trenches at the ends of the freestall lanes (Photograph 3:DSCN4169) and noted solids build up at the edges of the flush flume trenches. Mr. Schwieterman IV stated that the solid build-up was removed using the skid steer during housekeeping activities and the solids were placed in the Manure Storage Barn. After viewing the interior of the Freestall Barn, the walkthrough continued to the outside of the Freestall Barn. EPA observed that freestall bedding material had been pushed out into the grass on the north side of the Freestall Barn near the

northwest corner (Photograph 4:DSCN4170) and also on the south side of the Freestall Barn near the southwest corner.

The walkthrough proceeded around the exterior of the south and west sides of the abandoned unroofed cow lot from the original dairy design. EPA observed that the concrete containment wall around the unroofed cow lot had a cut out opening in its southwest corner that allowed manure and straw solids to collect in a surface depression on the outside of the containment wall in the grass (Photograph 5:DSCN4171). EPA did not observe evidence that the manure/straw solids had migrated from the surface depression further into the grassed area towards Prairie Creek. From the west side of the unroofed cow lot, the walkthrough continued north towards the main corn and soybean grain bins and then west over the creek crossing towards the west side of the farm where the Manure Lagoon and Silage Storage Pad are located. EPA observed concrete placed along the east bank of Prairie Creek adjacent to the driveway's creek crossing that connects the east and west sides of the farm (Photograph 6:DSCN4172). According to Mr. Schwieterman IV, the concrete along the bank in this area was added to mitigate erosion of the bank caused by stormwater run-off from the driveway flowing southwest off the driveway, past the western-most corn grain bin and into the creek. EPA did not observe evidence of manure or corn along the run-off pathway or on the bank of the creek where stormwater would flow into the creek.

The walkthrough continued west along the access driveway to the Silage Storage Pad which is located approximately 600 feet west of Prairie Creek. EPA observed the silage piles to be covered with plastic sheeting that was secured by crushed limestone at the base and tire rounds on top. The Silage Storage Pad is a concrete pad with no curbing along the sides of the pad. According to Mr. Schwieterman IV, the Silage Storage Pad is sloped to the east and southeast to direct leachate and run-off to a perforated drain tile that collects those liquids from along the eastern edge of the pad (Photograph 7:DSCN4173) and directs the leachate and/or stormwater run-off toward a general collection area at the southeast corner of the Silage Storage Pad. The general collection area at the southeast corner is a depression on the ground surface that has an inlet tile that directs leachate and/or stormwater run-off via gravity through an underground tile into the Manure Lagoon. EPA observed the tile inlet that directs leachate and stormwater run-off to the Manure Lagoon (Photograph 8:DSCN4174). EPA observed leachate pooled in tire ruts and surface depressions on the ground on the east side of the Silage Storage Pad, adjacent to the pile of re-used crushed limestone (Photograph 10:DSCN4176). EPA also observed the vegetated grassed buffer area that is maintained on the east side of the Silage Storage Pad (Photograph 9:DSCN4175). EPA did not observe evidence of silage leachate, silage or other materials from the storage pad within the grassed buffer area. The vegetated buffer area extends approximately 570 feet east to the natural vegetation strip (35 feet) along the west bank of Prairie Creek.

The walkthrough continued to the manure storage lagoon. EPA observed the white PVC inlet pipe on the west side of the Manure Lagoon that directs leachate and stormwater flow from the Silage Storage Pad into the Manure Lagoon (Photograph 11:DSCN4177). EPA also observed the T-handle for the knife valve associated with the inlet pipe. According to Mr. Schwieterman IV, the valve is always closed unless the operators need to drain leachate and/or stormwater from the Silage Storage Pad collection area into the Manure Lagoon. The flush flume reception pit discharge pipe that directs manure from the flush flume reception pit into the Manure Lagoon is

located on the south side of the Manure Lagoon, closer to the southeast corner (Photograph 12:DSCN4178). A concrete spillway is present under the the flush flume reception pit discharge pipe to prevent bank erosion as manure from the flush flume reception pit is pumped into the lagoon.

The walkthrough then continued back to the main production area on the east side of Prairie Creek. EPA observed that the swine barns which are visible on publicly available aerial views of the facility had been demolished. Mr. Schwieterman IV confirmed that these buildings were demolished as they were no longer in use. EPA then walked south along the eastern bank of Prairie Creek and observed a vegetated berm along the bank of the creek from the southern property line, north along the bank to approximately 40 feet past the northwest corner of the Freestall Barn. The berm continues along the east bank of Prairie Creek from the creek crossing for the driveway, north to the northern property line. EPA also observed the grassed swale that runs along the southern property line of the Schwieterman Farm. Stormwater drainage from the agricultural field on the east side of County Road 716A runs west through a culvert under County Road 716A, into this grassed swale and discharges to Prairie Creek.

EPA observed the flush flume reception pit structure and its associated pump shed and then continued on the walkthrough to the Manure Storage Barn. EPA observed the mortality composting pile (Photograph 13:DSCN4179) and piled pen pack/manure solids (Photograph 14:DSCN1480) maintained within the Manure Storage Barn. The last stop during the walkthrough was to the abandoned, unroofed cow lot, to view the southwest corner of the cow lot from inside the lot. EPA observed manure solids collected in the southwest corner of the cow lot where the cut-out opening was located (Photograph 15:DSCN4181). The walkthrough ended at approximately 11:55 a.m.

2.3 Closing Conference and Post-Inspection

Beginning at 12:00 p.m. EPA held a closing conference with Charles Schwieterman IV (Owner/Operator), Charles Schwieterman V (Operator) and Chad Schwieterman (Operator) in the dairy office to explain EPA's initial observations from the inspection walkthrough and the inspection interview.

Table 12: Post Walk-Through

Were specific Areas of Concern discussed with facility personnel?	Yes.
Who were the Areas of Concern discussed with? Charles Schwieterman IV, Charles Schwieterman V and Chad Schwieterman	
Specific Areas of Concern Discussed: EPA discussed four specific areas of concern. EPA observed manure solids collecting in the southwest corner of the abandoned unroofed cow lot where there is also an opening in the concrete containment wall from which contaminated stormwater/process wastewater would flow west overland, through the grass, and enter Prairie Creek which is approximately 170 feet west of the opening in the concrete containment wall (Photographs 5:DSCN4171 and 15:DSCN4181). The grass in this area was sparsley vegetated in some areas. A second area of concern was the accumulation of bedding on the exterior of the Freestall Barn that had been pushed over the knee wall to the outside of the Freestall Barn by the animals (Photograph 4:DSCN4170). EPA discussed the use of regular housekeeping in these areas to better manage manure/bedding materials. A third area of	

concern was the area of stormwater run-off erosion located along the east bank of Prairie Creek between the western-most corn grain bin and the creek crossing (Photograph 6:DSCN4172). EPA did not observe evidence of residual manure or corn along the run-off pathway or on the bank of the creek. Housekeeping measures around the grain bins and along the driveway should be maintained to prevent precipitation run-off from transporting corn/soy beans or manure to the creek. The fourth area of concern was that EPA observed pooling of silage leachate in tire ruts just off the east end of the Silage Storage Pad; however, the leachate was not observed to be reaching Prairie Creek, approximately 600 feet east of the Silage Storage Pad. There was a well established vegetated buffer (approximately 600 feet long) between the east side of the Silage Storage Pad and Prairie Creek.

Were any deficiencies or areas of concern addressed or fixed during the inspection? If so, list what was done. EPA did not observe any of the areas of concern being addressed at the time of the inspection.

However, following the inspection, Mr. Swieterman IV informed EPA via telephone conversation at 5:00 p.m. on April 21, 2023, that he had representatives from the Mercer County Soil and Water Conservation District (MCSWCD) visit the farm that afternoon following the inspection to show them the areas of concern identified during the inspection and conduct a site tour of the farm as well. Mr. Schwieterman IV stated that they specifically discussed a plan with MCSWCD to add additional boards to block the opening in the concrete containment wall where water run-off exits the cow lot. The farm would be addressing the housekeeping issues identified as well.

On May 10, 2023, Mr. Schwieterman IV provided EPA with an e-mail detailing the actions taken to address areas of concern identified during the inspection based on the recommendations provided by the MCSWCD when they visited the farm. The implemented actions included: removing the bedding that had been pushed to the outside of the sides Freestall Barn by the animals, placing gravel along that area, and installing lumber along the top of the freestall wall to increase the height by approximately 8 inches to prevent the bedding from being pushed outside by the animals. Mr. Schwieterman IV verified with the dairy's nutritionist that the added height would not block or decrease ventilation to the cows while resting. The farm also has implemented increased housekeeping along the Freestall Barn exterior. In regards to the abandoned cow lot, the cow lot area was cleaned and an additional board was installed across the opening at the southwest corner of the lot to slow the water down. In addition, improved housekeeping would be implemented where they mix supplements into the feed outside of the commodity barn. The grass area adjacent to the cow lot opening in the southwest corner, was prepared and seeded with fescue, oats and spring barley as a cover crop. This vegetation will be maintained at 6 to 8 inches tall to provide filtration of waters leaving through the boards across the cow lot opening. To address the run-off wash-out area around the western-most corn grain bin, the farm used 8-inch stone (which they purchased) and additional concrete pieces in the wash-out area to level the area to address the run-off issues. Mr. Schwieterman IV also provided EPA with photographs of the areas addressed including: the added lumber to the freestall wall, the exterior side of the freestall where pushed-out bedding was removed and gravel was installed, the concrete area of the abandoned unroofed cow lot where housekeeping was conducted to remove residual manure, the added board across the containment wall opening in the southwest corner of the

cow lot, the grass area that was prepped and reseeded between the west end of the cow lot and Prairie Creek, the seed used to overseed and a photograph of the new seed beginning to grow.

On June 9, 2023, EPA requested that Mr. Schwieterman IV describe any additional actions/activities that are being considered to address the potential for contaminated stormwater from the abandoned cow lot's southwest corner to flow through the replanted vegetated area and flow over the east bank of Prairie Creek into the creek, as this bank area just west of the cow lot does not appear to have defined berm along the top of the creek bank to prevent run-off from entering the creek like the vegetated berm that exists along the remainder of the production area.

On June 16, 2023, Mr. Schwieterman IV and EPA further discussed the drainage pathway from the southwest corner of the abandoned cow lot and plans for installing an additional roof over the area where heifers access the waterer just outside of the east side of the heifer barn. Mr. Schwieterman IV, stated that drainage from the vegetated grass area between the abandoned cow lot and the Freestall Barn naturally drains into Prairie Creek. Mr. Schwieterman IV sent a June 19, 2023 e-mail further describing the drainage pathway from the cow lot and the additional roof installation. He estimates the additional roof to protect the heifer waterer access area from precipitation could be completed before October 2023 and the dimensions would be 16 feet wide by 56 feet long. Mr. Schwieterman IV also stated that additional boards were added to the opening in the southwest corner of the abandoned cow lot. Holes were drilled into the boards to allow water to flow through the holes instead of sheet flowing over the top of the boards at the opening. Drainage through the holes would flow through the 6- to 8-inch high vegetation. Along the east bank of Prairie Creek, Mr. Schwieterman IV states that a berm of 4-inch stone will be installed which all water will filter through before entering the creek. The farm will also be purchasing a hydraulic sweep attachment for the skid steer to power brush the concrete driveway area where commodity products are added to the feed mixer.

Copies of the e-mail correspondence between Mr. Schwieterman IV and EPA are available for reference in the inspection file.

Compliance assistance materials given to facility personnel:

EPA provided a copy of the 2022 *U.S. EPA Small Business Resources Information Sheet*.

Exit Time:	Approximately 12:30 p.m ET.
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Disposable Boots Left at Facility?	Yes.
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Table 13: Waterway Documentation

List the pathway taken by EPA inspectors to document the waterway at the facility.

EPA walked the east bank of Prairie Creek from the creek crossing that connects the east and west sides of the property, south to the southern property line. EPA also observed Prairie Creek from the creek crossing, looking north towards the northern property line.
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Table 14a: Sampling Information

Samples were not collected by EPA during the inspection.

ATTACHMENTS

- A. Inspection Photograph Log
- B. Annotated Aerial Facility Diagram

ATTACHMENT A
Inspection Photograph Log

Schwieterman Farms
EPA Inspection 04/21/2023
All photos taken by Megan Zale, Environmental Engineer, U.S. EPA
Camera: Nikon CoolPix W300 (SN 31034297)



1: DSCN4167

Description: The milking parlor floor is sloped to drain used parlor wash water to the floor drains which are connected to the flush flume reception pit.

Location: Milking Parlor

Camera Direction: West

Date/Time: 04/21/2023 / 10:49 AM



2: DSCN4168

Description: Overview of holding area adjacent to the west end of the Milking Parlor. An automatic squeegee system in the holding area scrapes manure to the west end of the holding area into the flush flume. The cow lane to the left of the holding area in the photograph is scraped with the skid steer and the manure solids are placed in the Manure Storage Barn.

Location: Holding Area at West End of Milking Parlor

Camera Direction: West

Date/Time: 04/21/2023 / 10:50 AM



3: DSCN4169

Description: Freestall Barn

Location: The equipment turnaround area on the west end of the Freestall barn is enclosed under roof as part of the barn structure to contain any track out of manure and prevent contact with precipitation. Manure is scraped into the flush flume trench at the west end of each freestall lane.

Camera Direction: North

Date/Time: 04/21/2023 / 10:57 AM



4: DSCN4170

Description: Freestall bedding material was observed to be pushed out into the grass on the north side of the Freestall Barn, near the northwest corner of the barn.

Location: Freestall Barn (Northwest Corner)

Camera Direction: South/Southeast

Date/Time: 04/21/2023 / 11:04 AM



5: DSCN4171

Description: The concrete containment wall around the unroofed cow lot was observed to have a cut out opening in its southwest corner that had allowed manure and straw solids to collect in a depression on the outside of the wall in the grassed area to the west. EPA did not observe evidence that the manure/straw solids had migrated further into the grassed area to the west towards Prairie Creek. Stormwater that comes into contact with the manure and straw can continue to flow west into Prairie Creek.

Location: Abandoned Unroofed Cow Lot

Camera Direction: East/Northeast

Date/Time: 04/21/2023 / 11:08 AM



6: DSCN4172

Description: Inside the red outlined box, Operators have placed concrete along the east bank of Prairie Creek adjacent to the driveway creek crossing that connects the east and west sides of the farm. The concrete along the bank in this area was added to mitigate erosion of the bank caused by stormwater run-off from the driveway flowing southwest off the driveway, past the corn grain bin and into the creek. EPA did not observe evidence of manure or corn along the run-off pathway or on the bank of the creek where stormwater would enter the creek.

Location: Crossing over Prairie Creek Connecting East and West Sides of Farm

Camera Direction: East

Date/Time: 04/21/2023 / 11:12 AM



7: DSCN4173

Description: View from the southeast corner of the Silage Storage Pad looking along its eastern edge. Silage piles were covered with plastic sheeting secured by crushed limestone at the base and tire rounds on top. The Silage Storage Pad is a concrete pad with no curbing along the sides of the pad. The pad is sloped to the east and southeast to a perforated drain tile that collects liquids from along the eastern edge of the pad and directs them towards a general collection area at the southeast corner of the Silage Storage Pad. The general collection area at the southeast corner is a depression on the ground surface that has an inlet tile that directs any leachate or stormwater run-off via gravity through an underground tile into the Manure Lagoon.

Location: Concrete Silage Storage Pad

Camera Direction: North

Date/Time: 04/21/2023 / 11:18 AM



8: DSCN4174

Description: This inlet tile off the southeast corner of the Silage Storage Pad directs leachate and stormwater run-off from the Silage Storage Pad general collection area at the southeast corner to the Manure Lagoon.

Location: Southeast Corner Silage Storage Pad

Camera Direction: East

Date/Time: 04/21/2023 / 11:20 AM



9: DSCN4175

Description: A vegetated grassed buffer area is maintained on the east side of the Silage Storage Pad. EPA did not observe evidence of silage leachate, silage or other materials from the silage pad within the grassed buffer area.

Location: Silage Storage Pad

Camera Direction: West

Date/Time: 04/21/2023 / 11:23 AM



10: DSCN4176

Description: EPA observed several shallow puddles of dark colored leachate collecting along the east edge of the Silage Storage Pad, adjacent to the pile of re-used crushed limestone. Crushed limestone is used along the base of the plastic coverings over the silage piles to keep the covers in place. The leachate was not observed within the grassed buffer area east of the Silage Storage Pad.

Location: East Edge Silage Storage Pad

Camera Direction: West/Northwest

Date/Time: 04/21/2023 / 11:24 AM



11: DSCN4177

Description: The white inlet pipe on the west side of the Manure Lagoon directs leachate flow from the Silage Storage Pad into the Manure Lagoon. The T-handle for the knife valve associated with the pipe is located above the inlet pipe on the top of the berm. The valve is always closed unless the operators need to drain leachate from the Silage Storage Pad collection area into the Manure Lagoon.

Location: Northwest Corner of Manure Lagoon

Camera Direction: South/Southwest

Date/Time: 04/21/2023 / 11:27 AM



12: DSCN4178

Description: View of the Manure Lagoon looking southeast towards the flush flume reception pit discharge pipe that directs manure into the Manure Lagoon. A concrete spillway is present under the discharge pipe to prevent bank erosion as manure from the flush flume reception pit is pumped into the lagoon.

Location: Manure Lagoon

Camera Direction: Southeast

Date/Time: 04/21/2023 / 11:28 AM



13: DSCN4179

Description: Mortality composting pile located inside the Manure Storage Barn.

Location: Manure Storage Barn

Camera Direction: Southwest

Date/Time: 04/21/2023 / 11:47 AM



14: DSCN4180

Description: The Manure Storage Barn is also used for storage of used pen pack and drier manure solids.

Location: Manure Storage Barn

Camera Direction: South

Date/Time: 04/21/2023 / 11:47 AM



15: DSCN4181

Description: Inside the red outlined box is the cut-out opening in the southwest corner of the containment wall around the abandoned unroofed cow lot that allows manure solids, straw and contaminated run-off from the lot to pool in a depressed grassed area adjacent to the opening. EPA did not observe evidence that the manure/straw solids had migrated further into the grassed area to the west or to Prairie Creek. The east bank of Prairie Creek runs along the west edge of the grassed area in this photograph just behind the wooden shed in the background.

Location: Southwest Corner of Abandoned Unroofed Cow Lot

Camera Direction: West

Date/Time: 04/21/2023 / 11:49 AM

ATTACHMENT B
Annotated Aerial Facility Diagram

Key

- MSB Manure Storage Barn
- EB Equipment Barn
- TS Tool Shed
- PR Pump Room for Flush Flume Reception Pit Pumps
- RP Flush Flume Reception Pit
- 1 Abandoned Milking Parlor
- 2 Unroofed Abandoned Cow Lot
- 3 Freestall Barn
- 4 Heifer Barn (Pen Pack)
- 5 Commodity Barn
- 6 Straw Storage
- 6A Straw Storage in Abandoned Original Dairy Barns
- 7 Mix Mill for Feed
- 8 Corn Grain Bin
- 9 Soybean Grain Bin
- 10 Abandoned Silos
- X Location of Demolished Swine Barns
- . . . Approximate Drainage Path Through Vegetated Buffer
- Approximate Location of Reseeded Vegetation Area (After Inspection)
- Southern Clean Storm Water Swale to Creek
- Approximated Potential Flow Pathway for Process Wastewater Run-off From Unroofed Abandoned Cow Lot to Prairie Creek
- Silage Drainage Collection Area
- Crushed Limestone Pile
- Perforated Silage Drainage Tile to Silage Run-off Collection Area
- Silage Pad Drainage Flow to Perforated Silage Drainage Tile
- Area Of Bank Erosion from Driveway Stormwater Run-off
- Flush Flume Reception Pit Discharge Pipe into Manure Lagoon
- Location of Opening in Containment Wall of the Unroofed Abandoned Cow Lot
- Compacted Vegetated Berm



Aerial Map Annotated by Anne Marie Vincent, Multimedia Section, US EPA (June 2023)