



State of Ohio Environmental Protection Agency

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June 10, 2009

2IK00027*AD
Fulton County

CERTIFIED MAIL

Karel Vande Kolk
Chesterfield Dairy, LLC
15710 County Road 14
Lyons, OH 43533

Re: **Notice of Violation** – Noncompliance with NPDES permit

Dear Mr. Vande Kolk,

I (Jon Bernstein, Division of Surface Water) visited Chesterfield Dairy on April 30, 2009 in response to an emergency situation regarding manure lagoon levels. You were present during my visit along with Monte Tucker and Doug Hubby of Vreba-Hoff Dairy Development. Ohio Department of Agriculture (ODA) inspectors Chris Rodabaugh and Mark Fritz had previously visited Chesterfield Dairy on April 16 and April 29, 2009. At the time of the visits, several violations of your National Pollutant Discharge Elimination System (NPDES) permit and your ODA permit-to-operate were discovered. Subsequent to my inspection, ODA has conducted follow-up visits to Chesterfield Dairy on May 3, May 11, and June 1.

It was alternating between a light rain and heavier rain during the April 30 inspection. The concrete settling basin was observed first during the visit. The basin appeared to have at least one foot of freeboard. However, ODA noted that during their April 29 partial inspection the basin did not have the required one foot of freeboard and capacity for the 100-year, 24-hour storm. Prior to my inspection, the manure level in this basin was taken down approximately two feet with the manure applied to a field just south of the facility. See Figure 1. Even though the manure was worked into the field, the application was done in violation of your NPDES permit. According to www.noaa.gov, there was an 80% chance of precipitation on April 30 with at least 1/2" of rain expected through May 1.

Your stormwater pond was inspected next. It appeared that the pond was no longer providing containment for stormwater and that the stormwater was heavily contaminated by manure (See Figure 2). The contaminated stormwater appeared to have traveled approximately 50 feet back into the wooded area in

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

the southeast corner of the dairy. Traveling north along the woods, the contaminated stormwater appeared to be impounded in the woods for about 500 feet. This is unacceptable. Your dairy was not designed to have manure contained in the adjacent woods and this wooded area should no longer be used as a waste storage area. The following table displays the results of a water quality sample taken from the southeastern corner of the stormwater retention area.

Table 1. Water quality sample from stormwater retention area

Parameter	Result	Units
BOD ₅	120	mg/L
Total Suspended Solids	132	mg/L
Ammonia	14.2	mg/L
Nitrate+Nitrite	0.14	mg/L
Total Phosphorus	4.14	mg/L

This sample shows that there were elevated levels of pollutants in the stormwater which collects in the southeast corner of the dairy. The concentration of ammonia in the stormwater was especially high, as the water quality standard for ammonia is typically around 13 mg/L. ODA has indicated that as of June 1, 2009 liquid levels in the stormwater basin are down and the water appears to be less contaminated.

In a January 19, 2007 Notice of Violation, this office requested that you document whether impounded water in the woods was draining to waters of the State. I am unaware of any documentation that you have provided to fulfill this request. Ohio EPA has been provided with aerial photographs of Chesterfield Dairy which were taken on March 13, 2009. The photographs show evidence of possible discharges from your facility from the southeastern corner of the dairy (see Figure 3) and through the eastern side of the woods next to the dairy (see Figure 4). The Fulton County Health Department has previously expressed concern that there may be drains in the woods which lead to field tiles. **Please provide this office with documentation which demonstrates whether or not any of the contaminated stormwater is draining to waters of the State.**

The Stage 1 and Stage 2 anaerobic lagoons were inspected. The Stage 1 lagoon was above its maximum operating level. The Stage 2 lagoon was also above its maximum operating level and it appeared that there were only a few inches of capacity left in this lagoon before it would overflow. ODA has indicated that on June 1, 2009 you were in compliance with the maximum operating levels for these lagoons.

During my visit, many areas around the dairy appeared to be in need of much improved housekeeping. For instance, manure solids were spilling out of the front of solids storage area "A" (See Figure 5). The NPDES permit for Chesterfield Dairy allows discharges of storm water as long as good housekeeping practices are conducted to ensure that the storm water is not contaminated by manure, animal feed, etc. Better housekeeping must be practiced at your dairy to prevent contamination of stormwater which is discharged from your facility.

Chesterfield Dairy has violated the following terms and conditions of its NPDES permit:

Page 2, Part I, A

1. CAFO PRODUCTION AREA

c. Storm water associated with industrial activity can be discharged in accordance with this permit as long as good housekeeping practices are conducted to ensure that the storm water is not contaminated by manure, animal feed, etc. See Part I, B for monitoring requirements.

Page 13, Part II, Item C

Spill prevention and good housekeeping techniques, along with diversion of clean water, shall be used to ensure that uncontained storm water from the production area is not contaminated by manure and to ensure that storm water discharges from the following areas maintain compliance with Ohio Water Quality Standards in the receiving water of the State: immediate access roads and rail lines used or traveled by carriers or raw materials, products, waste material, or by-products used or created by the CAFO; refuse sites; sites used for the storage and maintenance of material handling equipment; and shipping and receiving areas. Storm water that is contaminated by manure or raw material (such as silage) is process wastewater, which is included in the definition of manure in Part I, A,4 and may only be discharged in accordance with Part I, A of this permit.

Page 13, Part II, Item E

For all open manure storage or treatment structures, a minimum freeboard of one foot must be maintained at all times. This is in addition to the capacity needed to contain direct precipitation and runoff from the 100-year, 24-hour storm. These structures must be equipped with a depth marker which clearly indicates the minimum capacity to contain the runoff and precipitation of the 100-year, 24-hour storm event. If this freeboard is violated, Chesterfield Dairy LLC shall

immediately begin investigating removal options. See Part VII, Production Area Requirements.

Page 13, Part II, Item G

The permittee shall be responsible for proper operation and maintenance of the manure storage, treatment, or disposal system.

Page 16, Part II, Item N

A protective vegetative cover shall be established and maintained on all earthen basin embankments (outside toe of embankment to maximum operating elevation), berms, pipe runs, erosion control areas, and surface water diversions. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen basin, dikes, or embankments. Earthen basin embankment areas shall be kept mowed or otherwise controlled and accessible.

Page 20, Part III

3. FACILITY OPERATION AND QUALITY CONTROL

All wastewater treatment works shall be operated in a manner consistent with the following:

A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with conditions of the permit.

**Page 29, Part VII, PRODUCTION AREA REQUIREMENTS
Monitoring/Inspection Requirements**

Action	Frequency	Record Keeping Requirements
Inspect manure storage or treatment facilities, including devices channeling contaminated storm water to the manure storage or treatment facility for evidence of erosion, leakage, animal damage, overflow, or discharge.	1/week	Date and time of inspection, structural integrity, vegetation condition, and any corrective actions needed and the dates those actions were taken.

Page 30, Part VII, Item 1

Any deficiencies found as a result of these inspections must be corrected as soon as possible. Deficiencies not corrected within 30 days must be accompanied by an explanation of the factors preventing immediate correction.

**Page 36, Part VII, B, 2
Timing/Site Restrictions**

e. Land application shall not occur on saturated soils or during rain or runoff events, and shall not occur if the forecast contains a greater than 50% chance of precipitation for any individual hour, for a period extending 24 hours after the commencement of land application.

At this time, we request the following:

- 1. Complete the actions required of Chesterfield Dairy by ODA in their March 2, 2009 inspection report.** These actions include pouring a concrete pad on the east side of the concrete settling basin, installing additional curbing on the concrete driveway on the east side of the barns, and constructing a permanent solution to address any potential leachate or runoff from the north or south sides of the silage storage area. These actions are to be completed by September 15, 2009.
- 2. Provide Ohio EPA with a copy of the plan requested by ODA in the May 14, 2009 Notice of Deficiencies issued to Chesterfield Dairy.** The plan is to include detailed calculations on manure production volume, including production from 1,750 mature cows, associated wash/waste water, and predicted rainfall/runoff. The plan shall detail the land application areas, the planned cropping rotation of these areas, and the availability of these areas for manure application. It shall also provide estimated volumes of manure to be removed in order to allow the facility to remain in compliance with maximum operating levels through the wheat and silage harvest seasons.
- 3. In a letter to Rick Wilson (Ohio EPA, Division of Surface Water) dated February 8, 2008 (enclosed), you stated that you would like to change your existing storm water retention pond into a fresh water pond of 3 million gallons.** There was a plan to install a pipe with a valve to discharge to the riser on the south side of the area, in case the water level gets too high. You also stated that you would like to make a drain on the east side of the dike in the woods to that riser, to create an outlet for the rainwater that collects in the woods. You stated that the rainwater in the woods never comes into contact with the production area. It is apparent

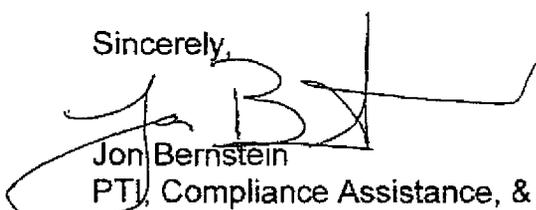
that the "production area" at the dairy has expanded into the woods and so it is questionable as to whether or not the rain water in the woods comes into contact with the production area. **Please let this office know if the installation of the pipes and drains mentioned in your February 8, 2008 letter ever took place. Also, please provide this office with documentation which demonstrates whether or not any of the contaminated stormwater at the dairy is draining to waters of the State.**

4. **Practice better housekeeping.** There were several areas around the dairy which were in need of greatly improved housekeeping, especially the area around the solids storage pad "A". Efforts must be made to ensure that manure and other contaminants are kept away from direct contact with stormwater which may leave the site. You should also attempt to seed locations where bare soil is exposed, such as the area next to the north free stall barn (See Figure 6).

Please respond to the above concerns within **21 days** of receipt of this letter. You should be aware that violations of your NPDES permit could result in "Findings of Violation and Orders for Compliance" being issued to Chesterfield Dairy by either Ohio EPA or the U.S. EPA. Further violations of your NPDES permit or your ODA permit-to-operate may result in enforcement action being taken against Chesterfield Dairy by Ohio EPA, U.S. EPA, or ODA. Failure to complete actions required of you by ODA or Ohio EPA could also result in enforcement action against your dairy.

Should you have any questions, comments, or concerns, feel free to contact me at (614)728-2397 or at jon.bernstein@epa.state.oh.us or you may contact Cathy Alexander at (614) 644-2021 or at cathy.alexander@epa.state.oh.us.

Sincerely,



Jon Bernstein

PTI, Compliance Assistance, & CAFO Unit
Division of Surface Water

cc: Kevin Elder, ODA-LEPP
Cheryl Burdett, U.S. EPA – Region V
Jessica Millar, U.S. EPA – Region V
Jenny Davison, U.S. EPA – Region V
Monte Tucker, Vreba-Hoff Dairy Development
Doug Hubby, Vreba-Hoff Dairy Development

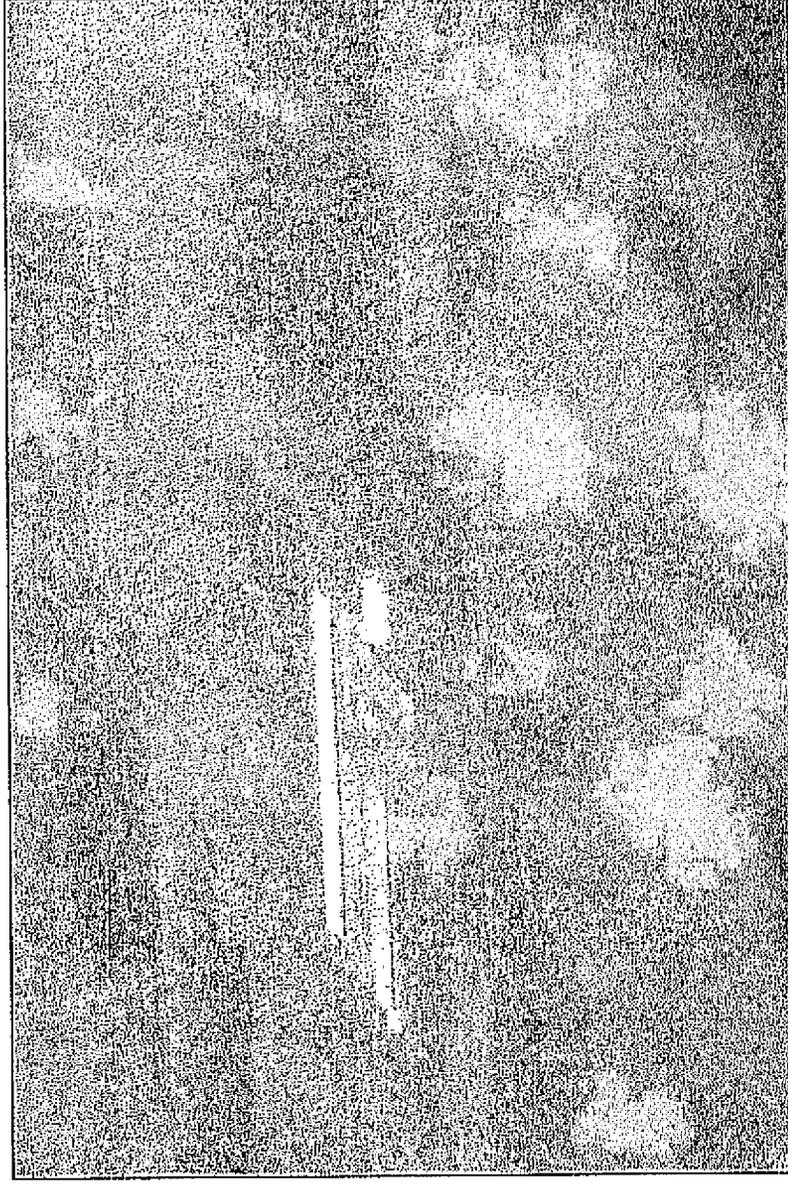


Figure 3. Aerial photo of south end of Chesterfield Dairy taken March 13, 2009



Figure 4. Aerial photo of eastern end of Chesterfield Dairy taken March 13, 2009

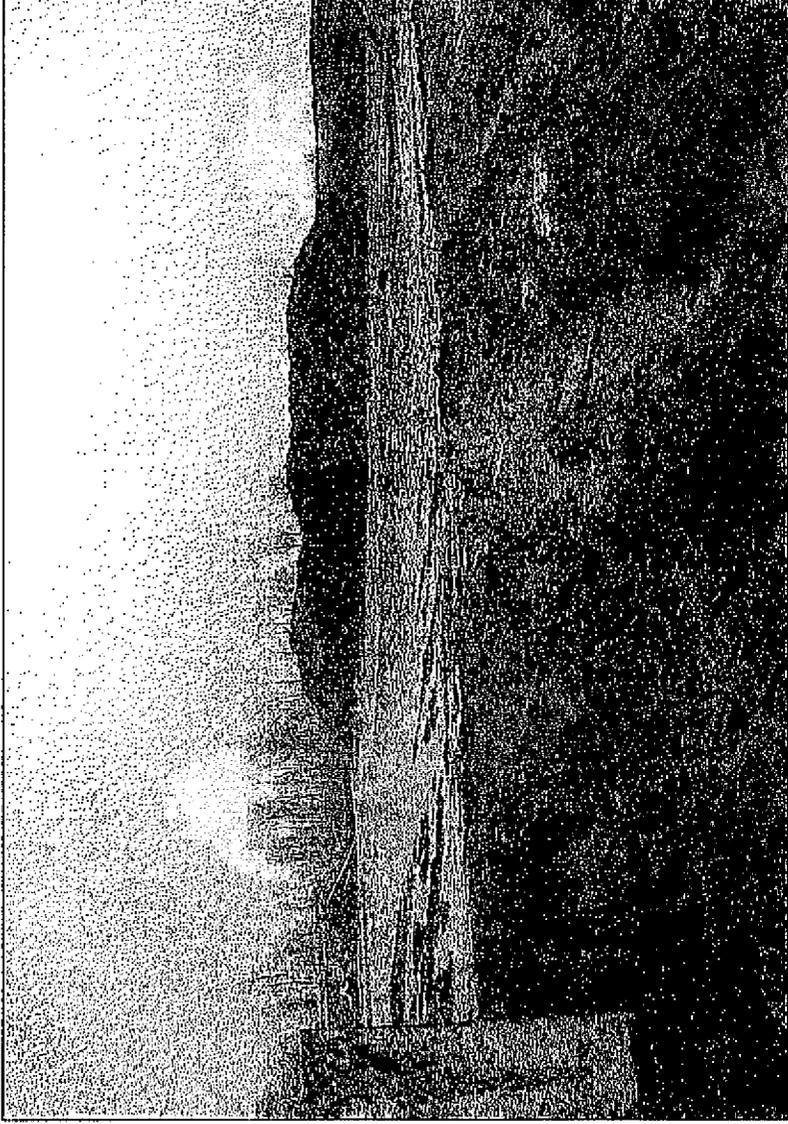


Figure 5. Manure spilling out of solids storage area "A"

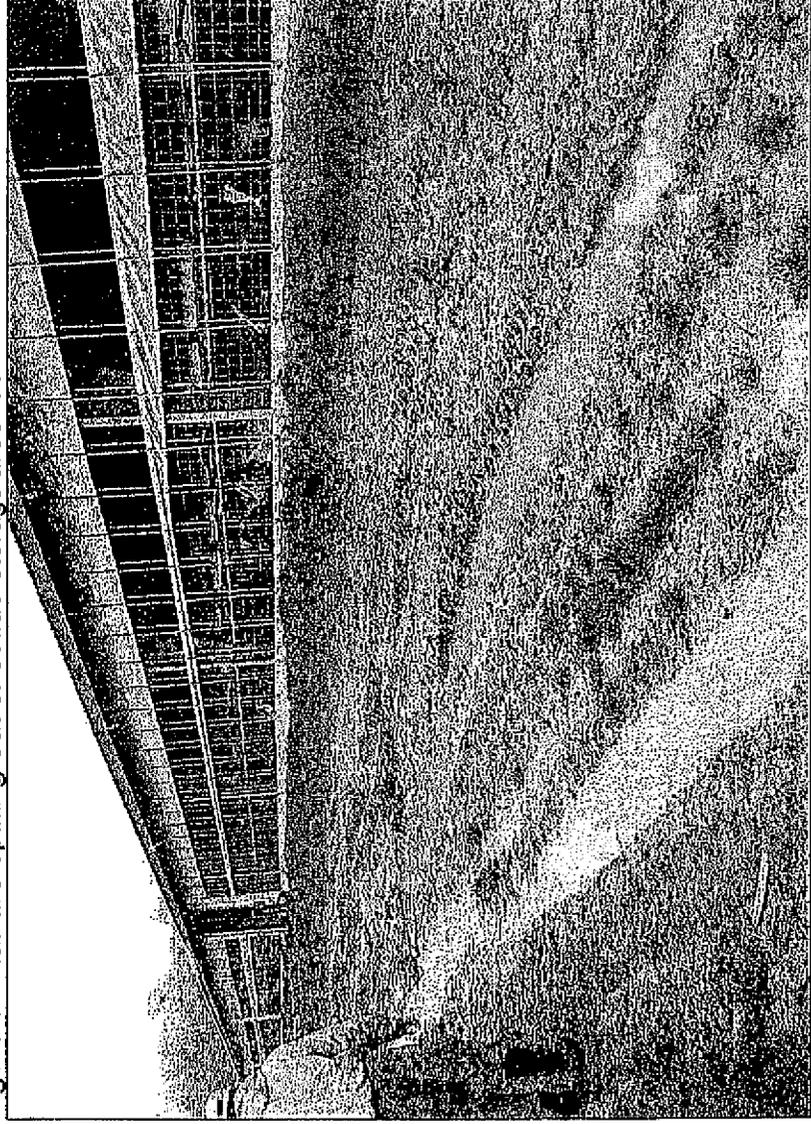


Figure 6. Area north of free stall barn in need of seeding

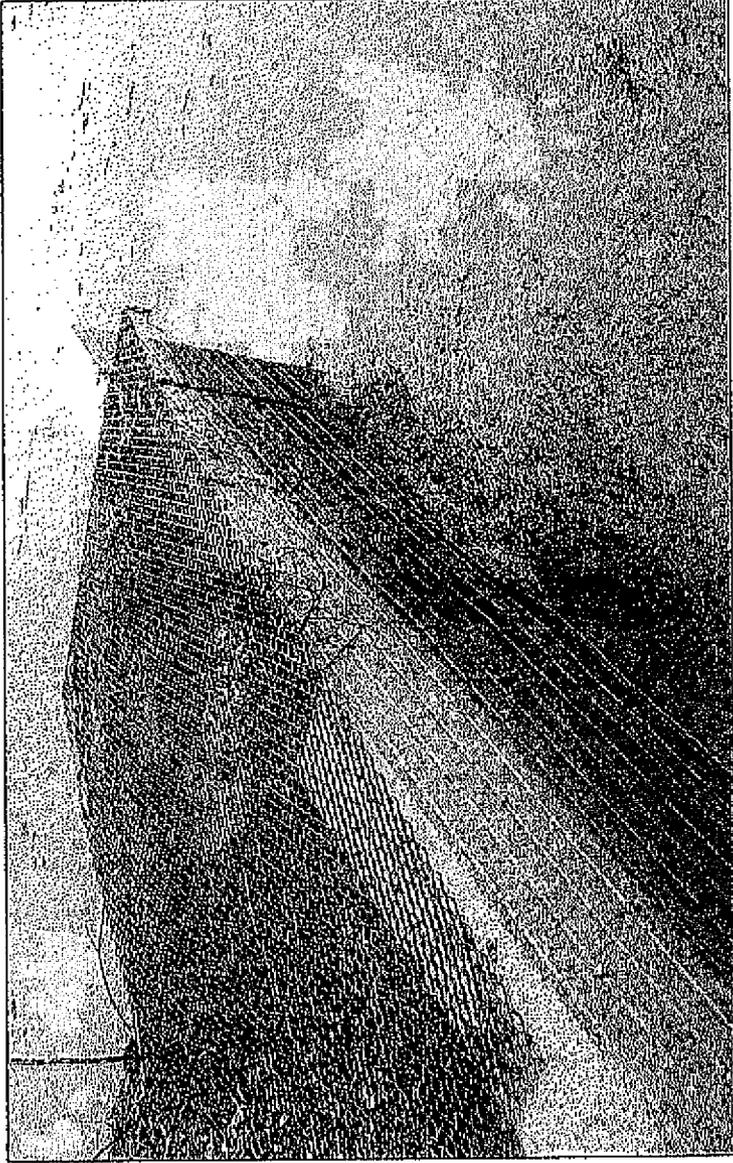


Figure 1. Concrete settling basin with previous manure level visible



Figure 2. Contaminated stormwater pond. Note that the pond has overflowed its original footprint