Ohio | Environmental Protection Agency
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

February 26, 2013

RE: LORAIN COUNTY
FRENCH CREEK BIOENERGY, LLC
NPDES PERMIT NO. OH0144282
OHIO EPA PERMIT NO. 3IN00373*AD
SEWAGE SLUDGE INSPECTION

CERTIFIED MAIL

NOTICE OF VIOLATION

Bruce Bailey, Vice President of Technical Affairs
French Creek Bioenergy, LLC
7624 Riverview Road
Cleveland, Ohio 44141

Dear Mr. Bailey

On February 6, 2013, a sewage sludge inspection was conducted in order to determine compliance with Ohio Administrative Code (OAC), Chapter 3745-40, Ohio's sewage sludge rules, at the French Creek Bioenergy, LLC wastewater treatment plant (WWTP). The facility was represented by you and Dan Seifert, Plant Operator, who provided information regarding the WWTP's sewage sludge operations and records. The sewage sludge inspection consisted of a review of the WWTP's contact information, completion of a compliance checklist, a review of the WWTP's sewage sludge records, and an evaluation of the sewage sludge treatment units.

WWTP Information

The WWTP currently treats approximately 15,000 gallons of wastewater per day and has a design treatment capacity of 5,000 dry tons. Sewage sludge is treated within one 750,000-gallon anaerobic digester, one 230,000-gallon biomass equalization tank, a 12,000-gallon liquid receiving tank, and a solids receiving hopper. The minimum and average residence times within the anaerobic digester are thirty days and thirty-five days, respectively. The WWTP currently has approximately fifteen to twenty days of onsite sewage sludge storage capacity.

Sewage Sludge Management

The WWTP is currently generating a Class B biosolid by performing pathogen reduction (PR) alternative P-1, geometric mean of seven fecal coliform samples, and vector attraction reduction (VAR) option VAR-1, 38% volatile solids reduction. In addition, VAR-9, injection, is being performed.

During the review of VAR data, January 2013 recorded a volatile solids reduction of 23.87%. You stated that a draft tube was installed within the anaerobic digester and the active liquid was pumped into the biomass equalization tank, which reduced the volatile solids content when a raw sample of the "mixed" sewage sludge was collected. Via an email dated February 19, 2013,

you provided a revised volatile solids calculation that excluded the "mixed" sewage sludge, which resulted in a volatile solids reduction of 93.4%.

Adequate records are being maintained to verify that the PR and VAR requirements are being satisfied.

NPDES Permit No. 3IN00373*AD

Part II.B of the NPDES permit states that the permit "is for the beneficial use of biosolids generated from the anaerobic digestion of sewage sludge, biosolids, manure, food waste, fats, oils, grease, energy crops (i.e. grain, hay, silage, spilled and soiled feed, and stover), glycerin, and stillage for the purpose of producing energy from methane generation. All other uses and feedstocks must be separately approved by Ohio EPA."

According to manifests maintained at the WWTP and confirmed by John Uptmor of Lubrizol Corporation (Lubrizol), French Creek Bioenergy, LLC received industrial wastewater from Lubrizol generated from the production of acrylics, water based urethanes, and thermal plastic poly-urethanes. The industrial wastewater consists of hot water, caustic, ammonia, residual product, acetone, and isopropyl alcohol. This waste stream has not been approved by Ohio EPA as an acceptable feedstock. **The acceptance of the industrial wastewater constitutes a violation of Ohio Revised Code, Chapter 6111.07 and Part II.B of the NPDES permit.** The facility must immediately cease the acceptance of the industrial wastewater. In addition, any sewage sludge that has been comingled with the Lubrizol industrial wastewater cannot be beneficially used.

Ohio EPA recommends transferring the sewage sludge that has been comingled with the Lubrizol industrial wastewater to the headworks of another WWTP for treatment or dewatering the sewage sludge that has been comingled with the Lubrizol industrial wastewater for disposal within a landfill. Any filtrate from dewatering of the sewage sludge that has been comingled with the Lubrizol industrial wastewater must also be properly managed (i.e. not beneficially used).

In the event that the WWTP elects to pursue Lubrizol industrial wastewater as a possible feedstock, the WWTP must submit a pilot project to Ohio EPA for review. The WWTP should incorporate the various components established within U.S. EPA's Pathogen Equivalency Committee's (PEC) guidance document entitled "QAPP Guidelines for Applied Research Projects" and U.S. EPA's Quality System guidance document entitled "EPA Requirements for Quality Assurance Project Plans - EPA QA/R-5." These guidance documents will aid the WWTP in producing the information necessary for Ohio EPA to complete its review of the Lubrizol industrial wastewater as a possible feedstock if a pilot project is elected to be pursued.

For your convenience, these guidance documents can be obtained from the following websites:

PEC – QAPP Guidelines for Applied Research Projects:
http://www.epa.gov/nrmrl/pec/pubs/qapp.pdf

U.S. EPA's - EPA Requirements for Quality Assurance Project Plans - EPA QA/R-5:
http://www.epa.gov/quality/

Pollutant Concentrations

A review of the WWTP's electronic discharge monitoring reports for the period of May 1, 2012 to February 1, 2013 do not indicate any Station 581 violations have occurred.

Standard Operating Procedure

OAC 3745-40-09(C)(3)(c) requires a WWTP to develop a standard operating procedure (SOP) that, at a minimum, includes the following information:

1. Sample collection or monitoring locations;
2. The frequency at which sample collection or monitoring is to occur;
3. Sample collection or monitoring procedures;
4. Sample storage and preservation procedures; and
5. Sample or monitoring analysis procedures, including any calculations required for sample or monitoring analysis.

A SOP was not available at the WWTP. Via a February 19, 2013 email, you provided an internal SOP and stated that a Precision Analytical SOP is being developed. Please note that the SOP must satisfy the requirements established within OAC 3745-40-09(C)(3)(c).

Records Retention

At the time of the inspection, the following records were not being maintained at the WWTP:

1. A copy of the application for an authorization for a beneficial use site and the Ohio EPA beneficial use site authorization letter for each beneficial use site that is utilized for beneficial use;
2. Records showing that the class B biosolids were not stored for more than ninety days at the beneficial use site;
3. The soil pH for each beneficial use site;
4. The soil phosphorous levels for each beneficial use site;
5. The agronomic rate calculations for each beneficial use site;
6. Forecast or actual precipitation data;
7. The monitoring records for all beneficial use sites with subsurface tile drainage;
8. The sign placement records for all authorized beneficial use sites;
9. Records regarding how the beneficial use application equipment is calibrated;
10. The date class B biosolids were beneficially used at each authorized beneficial use site and the quantity of class B biosolids (in dry tons) that were beneficially used at each authorized beneficial use site on that date;
11. A description of the equipment utilized to inject the biosolids; and
12. A description of how the beneficial user ensures that there is not a significant amount of the biosolids present on the surface of the authorized beneficial use site.

The failure to maintain proper records constitute violations of Ohio Revised Code, Chapter 6111.07 and OAC 3745-40-09. Via emails dated February 19, 2013, you provided copies of records that satisfy items 3, 4, 7, 8, and 9, detailed above. In addition, your email further states that items 1, 5, and 6 have been or will be addressed by February 22, 2013. Although Ohio EPA documented that biosolids delivered to Ohio EPA No. 47-00128 were immediately transferred to the beneficial use equipment and beneficially used, records must be maintained that satisfy items 2, 11, and 12, detailed above.

Maintenance Issues

The anaerobic digester is currently operating at a temperature of 81.2°F due to a generator that requires maintenance.

Authorized Beneficial Use Signage

A sign was posted at the entrance of Ohio EPA No. 47-00128 that stated "*NOTICE: CLASS B SEWAGE SLUDGE HAS BEEN LAND APPLIED TO THIS SITE.*" Ohio EPA informed you and Bruce Bailey of Quasar Energy Group to modify the sign language to be reflective of OAC 3745-40-11(A)(5), which reads "*NOTICE: OHIO EPA AUTHORIZED CLASS B BIOSOLIDS BENEFICIAL USE SITE. TRESPASSING IS PROHIBITED.*"

Notice of Violation Correction

Please be aware that Ohio EPA drafted a Notice of Violation (NOV) dated February 22, 2013 that was emailed to you and inner-agency staff. On February 22, 2013, just prior to mailing the signed NOV, you submitted information via email stating that you had "erroneously provided you [Ohio EPA] with information on a wastestream from Lubrizol that was rejected for anaerobic digestion. The correct description is as follows:

Lubrizol generates intermediate components for personal care products. Palm oil is the primary component. The waste stream goes to an on-site pre-treatment WWTP that primarily settles sludge/waste out after ferric chloride addition."

On February 25, 2013, Ohio EPA contacted Mr. Uptmor of Lubrizol to discuss the material that was transferred to French Creek Bioenergy, LLC. Mr. Uptmor explained that Lubrizol generates an industrial wastewater that results from the washout/cleaning of tanks when the type of products being manufactured changes. The industrial wastewater that is generated from the production of acrylics, water based urethanes, and thermal plastic poly-urethanes consists of hot water, caustic, ammonia, residual product, acetone, and isopropyl alcohol. Please refer to the revised "NPDES Permit No. 3IN00373*AD" section of this NOV for additional information.

After discussing the matter with Virginia Wilson, Ohio EPA and based upon the above information, the February 22, 2013 NOV was rescinded and replaced by this NOV; however, since the February 22, 2013 NOV is part of the official public record, a copy of the rescinded NOV has been enclosed to clarify the issue.

Corrective Action

Within ten days of receiving this Notice of Violation, the following information must be submitted to Ohio EPA for review:

1. A written report detailing how the sewage sludge that has been comingled with the Lubrizol industrial wastewater will be managed and how the items 2, 11, and 12, detailed within the "Records Retention" section will be satisfied. In addition, information must be submitted to explain why the beneficial use equipment calibration records provided within the February 19, 2013 email have not been completed (i.e. the ground speed (mph) was not provided); and

2. Copies of the following information:

    a. The agronomic rate calculation for Ohio EPA No. 47-00128;
    b. Analytical data for the sewage sludge that was comingled with the Lubrizol industrial wastewater and was beneficially used;
    c. The forecast or actual precipitation data for Ohio EPA No. 47-00128; and
    d. A copy of the Precision Analytical SOP.

Should you have any questions regarding the sewage sludge inspection, please contact me at your earliest convenience at (330) 963-1118 or via email at chris.moody@epa.ohio.gov.

Sincerely,

Chris Moody
Environmental Specialist II
Division of Surface Water

CM/cs

Enclosure

cc: John Uptmor, Lubrizol Corporation

Tim Kolenz, Kolenz Transportation, Inc.

ec: Rich Blasick, Ohio EPA, DSW, NEDO
Virginia Wilson, Ohio EPA, DSW, NEDO
Andrew Gall, Ohio EPA, DSW, NEDO
Betsy VanWormer, Ohio EPA, DSW, CO
Mike Settles, Ohio EPA, PIC, CO

Ohio EPA
40 years and moving forward

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According to manifests maintained at the WWTP, French Creek Bioenergy, LLC received wastewater, consisting of mostly plastic polymers, from Lubrizol that resulted from the production of acrylic polymer and urethane products. This waste stream has not been approved by Ohio EPA as an acceptable feedstock. **The acceptance of the production wastewater constitutes a violation of Ohio Revised Code Chapter 6111.07 and Part II.A of the NPDES permit.** The facility must immediately cease the acceptance of the Lubrizol production wastewater. In addition, any sewage sludge that has been comingled with the Lubrizol production wastewater cannot be beneficially used.

Ohio EPA recommends transferring the sewage sludge that has been comingled with the Lubrizol production wastewater to the headworks of another WWTP for treatment or dewatering the sewage sludge that has been comingled with the Lubrizol production wastewater for disposal within a landfill. Any filtrate from dewatering of the sewage sludge that has been comingled with the Lubrizol production wastewater must also be properly managed (i.e. not beneficially used).

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    b. The forecast or actual precipitation data for Ohio EPA No. 47-00128; and
    c. A copy of the Precision Analytical SOP.

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Sincerely,

Chris Moody
Environmental Specialist II
Division of Surface Water

CM:bo

pc: Tim Kolenz, Kolenz Transportation, Inc.

ec: Rich Blasick, DSW-NEDO
Virginia Wilson, DSW-NEDO
Andrew Gall, DSW-NEDO
Betsy VanWormer, DSW-CO
Mike Settles, PIC