

Wilkshire (S)



Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

April 20, 2011

RE: TUSCARAWAS COUNTY
WILKSHIRE HILLS WWTP
NPDES PERMIT NO. OH0076261
OHIO EPA PERMIT NO. 0PJ00008*GD
SEWAGE SLUDGE INSPECTION

Tuscarawas County Board of Commissioners
125 East High Avenue
New Philadelphia, Ohio 44663

Dear Commissioners:

On April 5, 2011, a sewage sludge inspection was conducted in order to determine compliance with Ohio Administrative Code (OAC) 3745-40, Ohio's sewage sludge rules, at the Wilkshire Hills wastewater treatment plant (WWTP). The facility was represented by Ed Wilson, Superintendent, 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 sewage sludge records, and an evaluation of the sewage sludge treatment units.

WWTP information

The WWTP has a design treatment capacity of 750,000 gallons of wastewater and currently treats approximately 400,000 to 500,000 gallons of wastewater per day. Sewage sludge is treated within two aerobic digesters (total capacity of 140,000 gallons) and one rotary fan press. The WWTP generates a Class B sewage sludge via satisfying pathogen reduction alternative No. 1, geometric mean of seven fecal coliform samples, and vector attraction reduction option No. 4, specific oxygen uptake rate.

Onsite sewage sludge storage capacity is approximately thirty (30) days. The WWTP has the ability to transfer sewage sludge to the Village of Strasburg WWTP, Ohio EPA Permit No. 0PB00043*HD, for treatment and can utilize the Countywide Recycling & Disposal Facility (CID: 38390) for disposal. Mr. Wilson explained that starting in April 2011, the WWTP eliminated the sewage sludge land application program and began either transferring sewage sludge to the Village of Strasburg WWTP for treatment or disposing of sewage sludge at the Countywide Recycling & Disposal Facility.

The sewage sludge inspection documented the following violations occurring at the WWTP:

I. Station 581

According to Ohio EPA records, the following numeric violation has occurred:

Parameter	Reporting Code	Limit (mg/kg)	Reported Value (mg/kg)	Date of Occurrence
Arsenic, Total In Sludge	01003	75	78.2	12/6/2010

Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087-1924

330 | 963 1200
330 | 487 0769 (fax)
www.epa.ohio.gov

Due to the concern of the elevated arsenic concentration, the WWTP collected two additional sewage sludge samples for analysis on January 27, 2011. According to the February 2, 2011 laboratory report, analytical results for arsenic were 78.9 mg/kg and 56.9 mg/kg. The WWTP questioned the contracted laboratory results and the January 27, 2011 sewage sludge samples were reanalyzed. According to the February 24, 2011 laboratory report, revised analytical results for both samples were <1 mg/kg. At the request of the WWTP, the contract laboratory submitted a letter stating "after review of the analytical data and the sample prep we found that the individual in charge of preparing the samples was not following standard operating procedure cause miss calculations and false positives. We went back and reanalyzed the samples and issued corrected reports." Copies of the analytical reports and the contract laboratory's letter of correction were provided to Ohio EPA. Mr. Wilson explained that the elevated arsenic sewage sludge was transferred to the Village of Strasburg WWTP.

During the inspection, I instructed the WWTP to contact Jamie Roberts, eDMR coordinator, in order to address the elevated arsenic concentration reported December 6, 2010. For your convenience, Mr. Roberts can be contacted at (614) 644-2054 or via email at james.roberts@epa.state.oh.us.

II. Agronomic Rate Calculation

OAC rule 3745-40-04(D) requires "bulk sewage sludge shall be land applied at a rate that is equal to or less than the agronomic rate."

The WWTP does not have any records documenting that agronomic rate calculations have been utilized to determine the amount of sewage sludge that can be land applied to each specific authorized site. The WWTP must begin performing agronomic rate calculations for all authorized sites that are utilized for land application of sewage sludge.

In the event that land application of sewage sludge will be performed in the future, Ohio EPA has developed a spreadsheet that can be utilized to calculate the agronomic rate. For your convenience, the spreadsheet can be located under the "compliance assistance tools" section at the following website:

<http://www.epa.ohio.gov/dsw/sludge/biosolid.aspx>

III. Notice and Necessary Information (NANI)

OAC rule 3745-40-04(E) requires a permittee who generates bulk sewage sludge shall provide a label or information sheet to the following persons: all persons who receive bulk sewage sludge from the permittee; all persons who land apply bulk sewage sludge received from the permittee; and the owner or lease holder of the land upon which the bulk sewage sludge is land applied. Such label or information sheet shall provide all notices and information necessary to comply with the requirements of this chapter including the following:

1. The name, address, telephone number, and NPDES permit number of the permittee;
2. A statement that the material is or contains a by-product of wastewater treatment;
3. A statement that the Ohio EPA, division of surface water, may be contacted at 1-877-644-2001;
4. The concentration of total Kjeldahl nitrogen, ammonia nitrogen, total phosphorus, and total potassium of the sewage sludge in milligrams per kilogram (dry weight basis);
5. The concentration of total Kjeldahl nitrogen, available phosphorus, and soluble potassium of the sewage sludge as a "grade"; and
6. When applicable for a liming material, the effective neutralizing power, fineness index, and standard of fineness of the sewage sludge.

At the time of the inspection, Mr. Wilson was unable to determine if the WWTP was providing the NANI to the applicable persons detailed within OAC rule 3745-40-04(E). In the event that land application of sewage sludge will be performed in the future, the appropriate information must be developed and provided to the applicable persons detailed within OAC rule 3745-40-04(E). Please note that the NANI requirements will change July 1, 2011 and the new requirements can be located in OAC rule 3745-40-05(A).

IV. Records Retention

- A. OAC rule 3745-40-06(J) requires the person who land applies bulk sewage sludge shall develop the following information, shall retain the information for five years, and shall make the information available to the division upon request:
 1. A description of how the land application agronomic management requirements of OAC rule 3745-40-04 are met for each site on which bulk sewage sludge is applied;
 2. For class B sewage sludge, a description of how the site restrictions of OAC rule 3745-40-05 are met for each site on which bulk sewage sludge is applied;
 3. The agronomic rate calculations used to determine the bulk sewage sludge loading rate in dry tons per acre for each site on which bulk sewage sludge is applied;
 4. The following certification statement signed by the person who land applies bulk sewage sludge:

"I certify, under penalty of law, that the information that will be used to determine compliance with the land application agronomic management requirements of rule 3745-40-04 of the Administrative Code was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."; and

5. When applicable, the following certification statement signed by the person who land applies bulk sewage sludge:

"I certify, under penalty of law, that the information that will be used to determine compliance with the site restrictions in rule 3745-40-05 of the Administrative Code was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

The WWTP was unable to provide the appropriate records to verify that the requirements established within OAC rule 3745-40-06 have been satisfied. In the event that land application of sewage sludge will be performed in the future, the WWTP must commence maintaining the required records.

Bypass Occurrence

During the inspection the WWTP was in the process of installing the rotary fan press and began feeding polymer. According to Mr. Wilson, it appeared that the polymer feed rate was too elevated in the return line to the headworks and caused the fine screens to become clogged. Influent wastewater began to bypass treatment via flowing down the paved walkway at the WWTP and into an adjacent agricultural field. I instructed Mr. Wilson to contact Jennifer Witte, Ohio EPA, DSW-SEDO, to inform her of the bypass that was occurring. Any correspondences regarding this matter must be directed to Ms. Witte.

New Sewage Sludge Rules

Please be aware that Ohio EPA's new sewage sludge rules will go effective July 1, 2011. Ohio EPA recommends that the WWTP review the new sewage sludge rules as they may affect the WWTP's current sewage sludge management program. For your convenience, the new sewage sludge rules can be located near the bottom of the following website:

http://www.epa.ohio.gov/dsw/rules/3745_40.aspx

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Please submit a written response to Jacob Howdysshell by May 20, 2011 detailing how the above noted violations will be addressed. Should you have any questions regarding the sewage sludge inspection, please contact me at (330) 963-1118 or via email at chris.moody@epa.state.oh.us or Mr. Howdysshell at (614) 644-2018 or via email at jacob.howdysshell@epa.state.oh.us at your earliest convenience. For your convenience, Mr. Howdysshell's mailing address is as follows:

Jacob Howdysshell
Ohio EPA Division of Surface Water
PO Box 1049
Columbus, OH 43216-1049

Sincerely,



Chris Moody
Environmental Specialist II
Division of Surface Water

CM/mt

cc: Ed Wilson, Tuscarawas County Metropolitan Sewer District

ec: Jennifer Witte, Ohio EPA, SEDO, DSW
Jacob Howdysshell, Ohio EPA, CO, DSW
Andrew Gall, Ohio EPA, NWDO, DSW