



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

December 29, 2010

RE: Belmont County
Powhatan Point WWTP
NPDES Permit No. OH0027219
Ohio EPA Permit No. 0PB00033*FD
Sewage Sludge Inspection

Mayor and Council
104 Mellot Street
Powhatan Point, Ohio 43942

Dear Mayor and Council:

On November 3, 2010, 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 Powhatan Point wastewater treatment plant (WWTP). The facility was represented by Paul McCloud, 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 350,000 gallons and currently treats approximately 60,000 gallons of wastewater per day. Sewage sludge is treated within two aerobic digesters and two drying beds (total capacity of 27,000 gallons). The design capacity of the aerobic digesters was unknown. Onsite sewage sludge storage capacity is approximately sixty (60) days. The WWTP has the ability to utilize a contractor to dispose of sewage sludge within a licensed municipal solid waste landfill.

A class B sewage sludge is generated by the WWTP via pathogen reduction (PR) alternative No. one, geometric mean of seven fecal coliform samples, and vector attraction reduction (VAR) No. one, thirty-eight percent (38%) volatile solids reduction.

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

PR Alternative One

OAC rule 3745-40-05(K) requires one of the class B pathogen requirements in paragraphs (O)(1) to (O)(3) of this rule and, when applicable, the site restrictions in paragraph (P) of this rule, shall be met when sewage sludge is applied to the land.

According to the WWTP, prior to 2009 PR monitoring was not being performed.

OAC rule 3745-40-05(O) requires that seven representative samples of the sewage sludge that is used or disposed shall be collected and the geometric mean of the density of fecal coliform in the samples shall be less than either two million MPN per gram of total solids (dry weight basis) or two million colony forming units per gram of total solids (dry weight basis).

Fecal coliform records were available for 2009; however, the geometric mean was estimated to be approximately 2,100,000. According to Ohio EPA records, the fecal coliform concentration reported December 1, 2009 was 2,742,857 MPN/g. Land application of sewage sludge is prohibited unless the geometric mean of seven fecal coliform samples is less than two million MPN/g.

Ohio EPA has developed a spreadsheet that can be utilized to calculate the geometric mean of seven fecal coliform samples. For your convenience, the spreadsheet can be located under the "compliance assistance tools" section at the following Web site:

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

VAR Option One

OAC rule 3745-40-05(M) requires "one of the vector attraction reduction requirements in paragraphs (Q)(1) to (Q)(10) of this rule shall be met when sewage sludge is applied to the land."

Records are not being maintained that document a VAR has been satisfied when sewage sludge is applied to the land.

OAC rule 3745-40-05(Q)(1) requires "the mass of volatile solids in the sewage sludge shall be reduced by a minimum of thirty-eight per cent."

Records are not being maintained that document that the volatile solids of the sewage sludge has been reduced by a minimum of thirty-eight percent (38%). For your convenience, enclosed is an excerpt from U.S. EPA's guidance document entitled *Environmental Regulations and Technology Control of Pathogens and Vector Attraction in Sewage Sludge* (guidance document), which provides information on pages 58 to 59 and appendix C for performing VAR No. 1. U.S. EPA's guidance document can be located at the following Web site:

http://water.epa.gov/scitech/wastetech/biosolids/biosolids_index.cfm

Agronomic Rate

OAC rule 3745-40-04(D) requires that " bulk sewage sludge shall be land applied at a rate that is equal to or less than the agronomic rate except as provided for in rule 3745-40-07 of the Administrative Code."

Records are not being maintained at the WWTP that indicate bulk sewage sludge has been land applied at or less than the agronomic rate. The WWTP committed to contacting the land owner to determine if the agronomic rate calculation records are being maintained.

Ohio EPA has developed a spreadsheet that can be utilized to calculate the agronomic rate for land application sites. 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>

Notice and Necessary Information

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.

During the inspection, the WWTP explained that the necessary information sheet is not being provided to persons who receive the sewage sludge. The appropriate information must be developed and provided the applicable persons detailed within OAC rule 3745-40-04(E).

Cumulative Pollutant Loading Rate

According to Ohio EPA's records, the WWTP reported the following pollutant concentrations:

| Pollutant | Date | Concentration (mg/kg) | Pollutant Monthly Average Concentration (mg/kg) |
|--------------------------|-----------|-----------------------|---|
| Arsenic, Total In Sludge | 9/21/2007 | 47 | 41 |
| Arsenic, Total In Sludge | 12/1/2009 | 54 | 41 |

OAC rule 3745-40-05(F) establishes that "the pollutant ceiling concentrations, cumulative pollutant loading rates (CPLR), and pollutant monthly average concentrations for sewage sludge shall not exceed the concentrations listed in table F-1, table F-2 and table F-3 of this rule."

Since the arsenic concentrations, provided in the table above, exceed the pollutant monthly average concentration (41 mg/kg) and are below the pollutant ceiling concentration (75 mg/kg), the authorized land application sites that received the sewage sludge generated during the June 2007 and December 1, 2009 reporting periods are now subject to the CPLR established within Table F-2 of OAC rule 3745-40-05(F).

CPLR Notification

OAC rule 3745-40-05(H) requires "Any person who land applies bulk sewage sludge subject to the cumulative pollutant loading rates in paragraph (F) of this rule to an authorized site in Ohio shall provide written notice to the division prior to initial application of bulk sewage sludge to the authorized site. The division shall retain and provide access to the notice. The notice shall include the following:

1. The location of the land application site by either street address or latitude and longitude; and
2. The name, address, telephone number and NPDES permit number of the generator of the bulk sewage sludge."

Ohio EPA records do not indicate that the appropriate written notification was submitted.

Generator Record Retention

OAC rule 3745-40-06(I) requires the permittee who provides treatment to bulk sewage sludge to develop and retain specific information for five years.

The following records were not available at the WWTP:

1. A description of how the pathogen reduction requirements of OAC rule 3745-40-05 are met;
2. When applicable, a description of how the VAR requirements in OAC rule 3745-40-05(Q)(1) to (Q)(8) are met;
3. The following certification statement signed by the permittee:

"I certify, under penalty of law, that the information that will be used to determine compliance with class (insert A or B) pathogen reduction alternative (insert one of the class A alternatives in paragraphs (N)(1) to (N)(6) of rule 3745-40-05 of the Administrative Code or one of the class B alternatives in paragraphs (O)(1) to (O)(3) of 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."; and

4. When applicable, the following certification statement signed by the permittee:

"I certify, under penalty of law, that the information that will be used to determine compliance with vector attraction reduction requirement (insert one of the vector attraction reduction requirements in paragraphs (Q)(1) to (Q)(8) of 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."

Land Applier Records Retention

OAC rule 3745-40-06(J) requires the person who land applies bulk sewage sludge to develop and retain specific information for five years.

The following records were not available at the WWTP:

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.";

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."; and

6. 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 vector attraction reduction requirement (insert one of the vector attraction reduction requirements in paragraphs (Q)(9) to (Q)(10) of 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 the information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

CPLR Land Applier Records Retention

OAC rule 3745-40-06(K) requires the person who land applies bulk sewage sludge subject to the CPLR to develop and retain specific information for five years.

The following records were not available at the WWTP:

1. The location, by street address, latitude and longitude, or unique identification number, of each site on which bulk sewage sludge is applied;
2. The number of acres in each site on which bulk sewage sludge is applied;
3. The date bulk sewage sludge is applied to each site;
4. The amount of sewage sludge, in dry tons, applied to each site;
5. The cumulative amount of each pollutant listed in OAC rule 3745-40-05(F)(2) applied to each site;
6. A description of how the requirements to obtain information in OAC rule 3745-40-05(G) are met; and
7. The following certification statement signed by the permittee:

"I certify, under penalty of law, that the information that will be used to determine compliance with the requirement to obtain information in paragraph (G) of rule 3745-40-05 of the Administrative Code was prepared, for each site on which bulk sewage sludge was applied, 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."

Annual Report Information

A review of the WWTP's 2009 Annual Sewage Sludge Report indicates that PR alternative one, geometric mean of seven fecal coliform samples, PR alternative two, composting, and PR alternative two, lime treatment, were utilized. In addition, VAR option ten, immediate incorporation, was performed. The WWTP must only report the PR alternative(s) and VAR option(s) that are performed and documented via appropriate records. During the inspection, the WWTP stated that PR alternative one, the geometric mean of seven fecal coliform samples, and VAR option one, thirty-eight percent (38%) volatile solids reduction, are utilized. The WWTP's 2010 Annual Sewage Sludge Report should be reflective of this information.

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Please be aware the Ohio EPA's Annual Sewage Sludge Report is due January 31, 2010 and can be obtained from the following Web site:

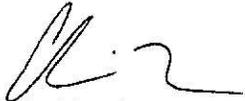
http://www.epa.ohio.gov/dsw/sludge/annual_report.aspx

The required certification statements, as detailed in the above record retention sections, have now been included in Ohio EPA's Annual Sewage Sludge Report. In addition, since sewage sludge subject to CPRL was land applied, Form 6 of Ohio EPA's Annual Sewage Sludge Report is now applicable and must be completed and submitted.

Please submit a written response to Jacob Howdyshell by January 28, 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. Howdyshell at (614) 644-2018 or via email at jacob.howdyshell@epa.state.oh.us at your earliest convenience. For your convenience, Mr. Howdyshell's mailing address is as follows:

Jacob Howdyshell
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: Paul McCloud, Superintendent

ec: Abbot Stevenson, Ohio EPA, DSW, SEDO
Andrew Gall, Ohio EPA, DSW, NWDO
Jacob Howdyshell, Ohio EPA, DSW, CO