



**Environmental
Protection Agency**

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

March 30, 2011

RE: HARRISON COUNTY
HOPEDALE WWTP
NPDES PERMIT NO. OH0041131
OHIO EPA PERMIT NO. 0PB00018*FD
SEWAGE SLUDGE INSPECTION

Mayor and Council
105 East Main Street
P.O. Box 476
Hopedale, Ohio 43976

Dear Mayor and Council:

On March 22, 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 Hopedale wastewater treatment plant (WWTP). The facility was represented by Joseph Valesko, Operator; Don Writesel, Assistant Operator; Larry Ward, Mayor; Kate Stringere, Council; and Harry Edgar, Utilities Director 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 125,000 gallons of wastewater and currently treats approximately 70,000 gallons of wastewater per day. Sewage sludge is treated within one dual ring aerobic digester (total capacity of 34,000 gallons) and three covered drying beds (dimensions of twenty feet by fifty feet by three feet). Onsite sewage sludge storage capacity exceeds one year.

On March 17, 2011 the Board of Utilities approved Agri-Sludge, Inc. to manage the WWTP's sewage sludge land application program. On April 5, 2011, Village Council is expected to hear the Board of Utilities decision.

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

I. Station 581

According to Ohio EPA records, the following frequency violations have occurred:

Parameter	Reporting Code	Reporting Frequency	Date of Occurrence
Arsenic, Total In Sludge	01003	1/Year	09/01/2007
Cadmium, Total In Sludge	01028	1/Year	09/01/2007
Chromium, Total In Sludge	01029	1/Year	09/01/2007
Copper, Total In Sludge	01043	1/Year	09/01/2007
Lead, Total In Sludge	01052	1/Year	09/01/2007
Nickel, Total In Sludge	01068	1/Year	09/01/2007

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

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

Parameter	Reporting Code	Reporting Frequency	Date of Occurrence
Zinc, Total In Sludge	01093	1/Year	09/01/2007
Selenium, Total In Sludge	01148	1/Year	09/01/2007
Mercury, Total In Sludge	71921	1/Year	09/01/2007
Molybdenum In Sludge	78465	1/Year	09/01/2007
Sludge Weight	70316	1/Month	05/01/2009

Information must be submitted to Ohio EPA that details why the above frequency violations have occurred.

II. Pathogen Reduction (PR)

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).

The geometric mean of seven fecal coliform samples is not being calculated. While seven fecal coliform samples were collected in 2009, the WWTP calculated the average of the seven fecal coliform samples. The WWTP must begin calculating the geometric mean of seven fecal coliform samples.

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 website:

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

III. Vector Attraction Reduction (VAR)

OAC rule 3745-40-05(Q)(1) requires that the mass of volatile solids in the sewage sludge to be reduced by a minimum of 38%.

The WWTP is calculating and maintaining records of the raw and final sewage sludge volatile solids concentrations and began calculating the volatile solids reduction in 2010. During the inspection Mr. Valesko performed the volatile solids reduction calculation and determined that the volatile solids reduction was 41.6% for 2009. Appropriate records must be maintained to document that a minimum volatile solids reduction has occurred.

For your convenience, U.S. EPA's guidance document entitled *Environmental Regulations and Technology Control of Pathogens and Vector Attraction in Sewage Sludge* (guidance document) provides information on page 58 and appendix C for performing the volatile solids reduction. U.S. EPA's guidance document can be located at the following website:

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

IV. Land Application

OAC rule 3745-40-05(K) requires that "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."

The WWTP has not been performing a PR or VAR correctly to document that the treated sewage sludge has satisfied applicable Class B requirements. The WWTP must satisfy the PR and VAR requirements established within OAC rule 3745-40-05.

V. Authorized Sites

OAC rule 3745-40-03(J) requires that "prior to the land application of bulk sewage sludge, permittees shall obtain from the division a specific site authorization for the site to which the land application of bulk sewage sludge is to occur."

The WWTP has been land applying sewage sludge to an eighteen acre site that has not been authorized by Ohio EPA. Mr. Valesko stated that Dan Messerly of Ohio EPA's Southeast District Office previously inspected the proposed sewage sludge site and that an authorization letter was never received by the WWTP. Approximately 7.42 tons of sewage sludge was land applied in June 2010. The WWTP must obtain Ohio EPA authorization for all land application sites that will receive Class B sewage sludge.

For your convenience, Ohio EPA's "*Sewage Sludge Site Authorization Packet*" can be located under the "Land Application to Authorized Sites" section at the following website:

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

VI. 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 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.

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>

VII. Soil Monitoring

OAC rule 3745-40-06(E) requires that "for authorized sites, the frequency of monitoring for soil pH and soil phosphorus level (Bray-Kurtz P1 extraction or Mehlich 3 extraction) shall be such that the most recent results are not more than two years old at the time of bulk sewage sludge land application."

The WWTP does not have any records of authorized sites being monitored for soil pH and soil phosphorus. Soil pH and soil phosphorus samples must be collected and analyzed for all authorized sites where Class B sewage sludge is land applied.

VIII. Field Signage

OAC rule 3745-40-04(H) requires "the permittee shall post signs at sites where class B bulk sewage sludge is land applied. The signs shall read "NOTICE: CLASS B SEWAGE SLUDGE HAS BEEN APPLIED TO THIS SITE." Such signs shall include the name of the permittee and the permittee's telephone number. Such sign(s) shall be posted within twenty-five feet of an obvious access point(s) and shall be unobstructed from view. Any authorized site with road frontage shall have at least one sign facing the road, within twenty-five feet of the road when possible, and shall be unobstructed from view. The text shall be in black capital letters on a white background and the letters shall be one inch in height. At sites with a low potential for public exposure, such signs shall be in place from the time land application begins to a minimum of thirty days after the termination of land application activity at the site. At sites with a high potential for public exposure such signs shall be in place from the time land application begins to a minimum of one year after the termination of land application activity at the site."

The WWTP must place the appropriate signage at authorized sites in accordance with OAC rule 3745-40-04(H).

IX. Records Retention

A. OAC rule 3745-40-06(I) requires the permittee who provides treatment to 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 PR requirements of OAC rule 3745-40-05 are met;
2. When applicable, a description of how the vector attraction reduction requirements in OAC rule 3745-40-05(Q)(1) to (Q)(8) are met;
3. The results of all analyses required by OAC rule 3745-40-06(A), (B), (C), (D), (F), and (G).

B. 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. The WWTP must commence maintaining appropriate records.

X. Certification Statements

OAC rule 3745-40-06(I) and (J) requires the permittee who provides treatment to bulk sewage sludge and the person who land applies bulk sewage sludge to maintain and develop for five years specific certification statements.

In 2010, the WWTP began maintaining the appropriate certifications statements as established within OAC rule 3745-40-06.

XI. 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.

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).

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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Cumulative Pollutant Loading Rates (CPLR)

According to the 2010 annual sewage sludge report, Form 4229, the WWTP is maintaining CPLR records. Please be aware that CPLR records only must be maintained if the pollutant monthly average concentrations established in Table F-3 of OAC rule 3745-40-04(F)(3) have been exceeded and do not exceed the pollutant ceiling concentrations established in Table F-1 of OAC rule 3745-40-05(F)(1).

Pollutant Analysis

Mr. Valesko explained in 2011, a fecal coliform sample was not analyzed within the six hour holding time due to an error by MASI Environmental Laboratories by performing the incorrect analytical method.

Please submit a written response to Jacob Howdysshell by April 29, 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: Joseph Valesko

ec: Aaron Pennington, Ohio EPA, SEDO, DSW
Dan Messerly, Ohio EPA, SEDO, DSW
Jacob Howdysshell, Ohio EPA, CO, DSW
Andrew Gall, Ohio EPA, NWDO, DSW