

GENERAL PERMIT WMGR088

Beneficial use of drinking water treatment plant sludge for use as a soil additive on agricultural lands.

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT
DIVISION OF MUNICIPAL and RESIDUAL WASTE

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BENEFICIAL USE OF DRINKING WATER TREATMENT SLUDGE

A. Description:

The approval herein granted is limited to the beneficial use of drinking water treatment sludge generated by a water supply treatment facility, hereinafter referred to as “water treatment sludge” or “waste”, for application on agricultural lands as a soil additive. The term “agricultural lands” refers to lands that have a recent history of continuous agricultural use. Specifically, lands where waste application is to take place must be an active farm currently engaged in growing crops. The permit area must be zoned for agricultural use if the local municipality has zoning regulations in place. Agricultural lands do not include lands that have been stripped of topsoil.

B. Determination of Applicability Requirements:

A person or municipality that proposes to operate under terms and conditions of this general permit after the date of permit issuance must obtain a “Determination of Applicability” (“DOA”) from the appropriate Department Regional Office (see attached list) prior to commencing authorized activities under this general permit. A completed (i) General Information Form (Authorization Application for a Residual or Municipal Waste General Permit Application), (ii) Form B (Professional Certification), (iii) Form 20 (Application for a Municipal or Residual Waste General Permit), (iv) Form 27R (Acceptance of General Permit Conditions), (v) Form HW-C (Compliance History), and (vi) a DOA application fee in the amount identified in Section A (General Information) of the Form 20 must be submitted to the appropriate Department Regional Office. A check shall be made payable to the “Commonwealth of Pennsylvania.” No activities shall commence unless approved, in writing, by the Department.

C. Operating Conditions:

1. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee’s application. Except to the extent that the permit states otherwise, the permittee shall operate its facilities covered by the general permit as described in the approved application.
2. This permit does not authorize and shall not be construed as an approval to discharge any industrial wastes, wastewater, leachate, or runoff from the land application sites to the waters of the Commonwealth.
3. The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit if the permittee is not in compliance with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety, or welfare of the people or the environment.

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4. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, provided that said local law, ordinance, or regulation is not preempted by state or federal law. Nothing in this general permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid state or federal law or regulation.
5. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access and to inspect all areas and permittee controlled adjacent areas where solid waste management activities are being or will be conducted. This authorization and consent shall include consent to collect samples of waste, water, or gases; to take photographs; to perform measurements, surveys, and other tests; to inspect any monitoring equipment; to inspect the methods of operation; and to inspect documents, books, and papers required by the Department to be maintained or produced. (See Sec. 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Sections 6018.608 and 6018.610(7).) This condition in no way limits any other powers granted to the Department under the Solid Waste Management Act.
6. Failure of the measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
7. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this permit shall be subject to compliance history review by the Department prior to performance as specified by the Pennsylvania Solid Waste Management Act of 1980.
8. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke, or reissue the authorization granted in this permit if it deems necessary to prevent harm or threat of harm to public health or the environment.
9. Water treatment sludge shall be managed in accordance with the Solid Waste Management Act, the act July 7, 1980, as amended P.L. 380, 35 P.S. §§ 6018.101 et seq. and the regulations promulgated therein.
10. The permittee shall provide a copy of this permit to each user of water treatment sludge approved under this permit. It is incumbent upon the permittee to see that all

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users of water treatment sludge approved under this permit comply with all conditions of this permit.

11. The permittee shall provide a one-time notification for any new sources to the county planning commission, county conservation district, and municipality in which application to agricultural lands as a soil additive is proposed, by delivering or causing to be delivered a copy of this permit, a copy of the chemical analysis of the sludge, and identifying the location(s) onto which water treatment sludge application is intended.
12. A person or municipality that land applies drinking water treatment sludge shall take reasonable measures to ensure that non-organic objects are removed from the waste prior to land application. The Department reserves the right, upon inspection, to impose more specific regulatory requirements on a case by case basis as may be required to minimize the non-organics in the waste being land applied under this general permit.
13. A farm conservation plan in accordance with 25 Pa. Code, Chapter 102 (relating to erosion control) shall be implemented at the farm at which water treatment plant sludge will be land applied.
14. The water treatment sludge shall not be mixed with other types of solid wastes, including hazardous waste, municipal waste, or special handling waste.
15. The permittee shall comply with the Air Pollution Control Act, 35 P.S. §§ 4001 – 4016, and the regulations promulgated under the Act, including Chapter 123, Standards for Contaminants, Fugitive Emissions at 25 Pa. Code §§ 123.1 and 123.2 and Odor Emissions at 25 Pa. Code § 123.31.
16. Upon cessation of operations or by the expiration date of this general permit or unless extended by the Department in writing, the permittee shall remove any remaining waste(s) material authorized under the general permit in the production of alternative fuels and any residual wastes or other materials which contain or have been in contact with the waste material authorized under this general permit, and shall provide for the processing and disposal of the waste or material in accordance with the Solid Waste Management Act, the environmental protection acts and the regulations promulgated thereunder.
17. The water treatment sludge may be beneficially used for application upon agricultural lands as a soil additive if none of the following limits are exceeded. For each metal in the table below, the analysis shall be based upon the “total” and conducted utilizing the “*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*” (EPA SW-846), or other methods approved by the Department.

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<u>Constituent</u>	<u>Limit*</u>
pH (range)	5.5 – 8.5
Arsenic	41 mg/kg dry weight
Cadmium	25 mg/kg dry weight
Chromium	1200 mg/kg dry weight
Copper	1500 mg/kg dry weight
Lead	300 mg/kg dry weight
Mercury	17 mg/kg dry weight
Molybdenum	18 mg/kg dry weight
Nickel	420 mg/kg dry weight
Selenium	36 mg/kg dry weight
Sodium	3500 mg/kg dry weight
Zinc	2800 mg/kg dry weight
PCBs	3 mg/kg dry weight

*These determinations may be based upon the 90 percent upper confidence level using “*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*” (EPA SW-86) as guidance for statistical treatment of data. If the waste exceeds any of these limits, the permittee shall re-analyze the waste for the chemical parameter(s) in question. If re-analysis shows that the waste still exceeds the limit(s), the permittee shall notify the appropriate Department Regional Office.

18. All water treatment sludge shall be stored, transported, and managed in a manner that complies with 2 Pa. Code, Chapter 299 of the residual waste regulations (Storage and Transportation).
19. Water treatment sludge may be stored for a maximum of 180 days on the farm where land application is to take place. The total amount of waste that may be stored shall not exceed the 15 dry tons per acre per year loading rate multiplied by the number of acres on which waste is to be applied. If storing water treatment sludge in a pile, under no circumstances may free liquids be present in the waste, as determined by Method 9095 (Paint Filer Liquids Test) “*Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*” (EPA SW-846).
20. Water treatment sludge shall not be stored in direct contact with, or applied directly into ground water or surface water.

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21. Water treatment sludge shall not be applied to slopes greater than 25%.
22. The waste application site shall have minimum depth from surface to seasonal high water table of no less than eleven (11) inches.
23. Waste treatment sludge shall not be applied to the land during periods of rain or to ground that is saturated, covered with snow, or frozen.
24. Runoff from the water treatment sludge storage areas shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Caw and regulations promulgated thereunder.
25. The storage, transportation, or use of the water treatment plant sludge shall be in a manner that will not create a nuisance or be harmful to public health, safety, or the environment, and shall be in a manner that prevents the dispersal of water treatment plant sludge by wind or water erosion.
26. Equipment used for the storage and application of the water treatment sludge shall be maintained in good operating condition. Daily inspections of equipment during water treatment sludge application activities are to be conducted to ensure that equipment will operate properly and examine for evidence of equipment failure.
27. Waste may be surface applied if the waste contains seven (7) percent or fewer solids. If the waste contains greater than seven (7) percent solids, it may only be surface applied if the act of incorporating the waste into the soil would detrimentally affect cops that have already been planted, or in the case of waste applied to sloped areas, would cause soil displacement,
28. Under no circumstances shall the maximum application rate of water treatment sludge exceed fifteen (15) dry tons per acre per year. Individual applications shall not exceed 25,000 gallons per acre per week. The waste shall be applied to the soil in such a manner as to prevent run-off and ponding.
29. When land applying water treatment sludge, display the permit number of this general permit on the sides of each application vehicle that is used in the land application of water treatment sludge, in alphanumeric characters at least three (3) inches high in a color contrasting to the background.
30. Water treatment sludge shall not be applied or stored within these isolation distances:
 - a. 100 feet of an intermittent or perennial stream;
 - b. 300 feet of a water source, unless otherwise approved by the Department, in writing;

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- c. In, along, across or projecting into, or otherwise affecting a wetland;
- d. 25 feet of a sinkhole or the perimeter of an unlined depression.

D. Record Keeping:

1. Records of any analytical evaluations conducted on the water treatment sludge pursuant to the residual waste regulations shall be kept by the permittee at the permittee's place of business and shall be available to the Department for inspection. At a minimum, these records are to include information on the dates of testing, each parameter tested, the results, the laboratory, sampling procedures, analytical methodologies, and person collecting the sample. This waste analysis information shall be retained by the permittee at the permittee's place of business for a minimum of 5 years after the analyses were performed.
2. Chemical analysis performed to comply with the requirements of this general permit must be performed by a laboratory accredited or registered for accreditation under the Environmental Laboratory Accreditation Act, 27 Pa. C.S.A. §§ 4101-4113.

E. Reporting Requirements:

1. For each site where water treatment residual was applied, the permittee shall develop documents for the beneficial activity during the last twelve (12) months as follows:
 - a. Name of the generator and location where the water treatment residual was generated;
 - b. Name and location of the site where water treatment residual was applied;
 - c. The dates and volumes of water treatment residual applied to the site;
 - d. The number of acres to which residual was applied; and
 - e. The water treatment residual application rate in dry tons per acre.

All records required shall be retained by the permittee at the permittee's place of business for a minimum of five (5) years and shall be made available to the Department upon request.

2. For each residual waste source applied during the past twelve (12) months, one of the following compliance monitoring conditions shall be met:
 - a. An analysis performed within the last year that has been conducted on a representative sample of the water treatment sludge for all of the parameters listed in Condition 17;

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- b. A copy of the waste generator's analysis that includes the parameters listed in Condition 17 and is not more than one (1) year old;
 - c. A signed certification from the waste generator that is not more than one (1) year old and states that the physical and chemical properties of the water treatment sludge have not changed. A signed certification may be used for a maximum of three (3) years, after which the sludge must be re-analyzed.
3. Any person or municipality that operates under the provisions of this permit shall immediately notify the Department's Bureau of Waste Management, in writing, of any changes in: the company name, address, owners, operators, and responsible officials; the location of land application sites; land ownership and the right to enter and operate on any land where the water treatment sludge application is to take place; the physical or chemical characteristics of the water treatment sludge; the generator(s) of the water treatment sludge; the process that generates the water treatment sludge; and the status of any permit issued by the Department or federal government under the environmental protection acts.
4. Any person or municipality who is permitted to operate under the provisions of this general permit may utilize new application sites or expand an existing site by providing notification to the Department. The notification shall be by certified mail and contain the following:

For an existing site:

- a. Description of method of beneficial use;
- b. Proof the water treatment sludge and waste management activities are consistent with the general permit;
- c. Signed and notarized statement by the person who seeks authorization to operate under the terms and conditions of this permit that states that the person accepts all conditions of this general permit;
- d. Proof the applicant has legal right to enter the land and perform the activities approved under this permit; and
- e. A map clearly showing the land applications site and all setback distances as required under Condition 17.

When land ownership by the permittee has changed, an irrevocable written consent from the landowner giving the Department permission to enter upon the land where the applicant will be conducting waste management activities and information that identifies the applicant, including the names and addresses of every officer that has a

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beneficial interest in or otherwise controls the operation of the company must also be submitted. The notification shall be submitted at least fifteen (15) days prior to starting expanded operation.

For a new location, the following information is also required:

- f. Name and address of applicant;
- g. Name and location of the generator of water treatment sludge; and
- h. Number and title of general permit

The notification for a new location shall be submitted at least fifteen (15) days prior to starting the new operations at a new waste application site.

5. For each new source of water treatment sludge, the permittee shall submit an analysis of a representative sample of the waste to the Department for all of the parameters listed in Condition 17 no less than fifteen (15) working days prior to waste acceptance and application. The permittee may apply the water treatment sludge in accordance with the conditions of this permit after the aforementioned fifteen day period unless otherwise instructed by the Department.
6. The permittee shall immediately notify the Department's Emergency Hotline by telephone at (717)787-4343 and the appropriate Department Regional Office in the event of a discharge or spill of water treatment sludge and shall take appropriate immediate action to protect the health and safety of the public and the environment.

F. Renewal:

A person or municipality that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal application shall be made using the "Form 20 (Application For a Municipal or Residual Waste General Permit)". The renewal shall be sent to the attention of the Department's Bureau of Waste Management, Rachel Carson State Office Building, 400 Market Street, P.O. Box 69170, Harrisburg, PA 17106-9170.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the renewal for permit

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coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.