

Ohio EPA Policy	Design Criteria; Sludge Management	
DSW-0400.010 Removed	Statutory reference: Rule reference:	Ohio EPA, Division of Surface Water Revision 0, August 1, 1988 Removed, August 23, 2002
<p>THIS POLICY DOES NOT HAVE THE FORCE OF LAW Pursuant to Section 3745.30 of the Revised Code, this policy was reviewed and removed.</p>		

This policy has been replaced by policy number DSW-0100.028, Revision 1, August 23, 2002.

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Design Criteria; Sludge Management

PURPOSE: To establish administrative procedures for the Ohio EPA in sludge management.

POLICY: This policy is intended to apply to stabilized sludge, which consist of liquid sludge, sludge cake, drying bed sludge, and composted sludge. Sludge other than stabilized sludge is dealt with in Part V of this policy. The following methods of disposal are addressed herein: land application, lagoons, incineration, sanitary landfills, and land reclamation.

Land Application

The land application of sludge for agricultural purposes shall be performed in compliance with the detail plans approved by Ohio EPA, Sections 6111.45 and 6111.46 of the Ohio Revised Code, and Rule 3745-31-02(C) of the Ohio Administrative Code.

A) Detail Plan

- 1) A detail plan shall be submitted for land application of sludge using the latest issue of *Cooperative Extension Service Bulletin 598 Ohio Guide for Land Application of Sewage Sludge, the Ohio Land Application of Sludge Manual, and Rule 3745-31-02(c) of the Ohio Administrative Code as the appropriate guidelines.
- 2) Detail plans for all land application of sludge will include appropriate analysis of sludge, evaluation of the proposed equipment, the proposed operational methods, and proposed monitoring requirements, including detailed records regarding all applications. A revised detail plan shall be submitted for approval to the Ohio EPA prior to a significant change in the method of operation, such a change in the type of equipment, method of application, sludge quality, or an increase in the rate of application.
- 3) All detail plans for land application of sludge shall list each county proposed to receive sludge from a specific treatment plant. A revised detail plan shall be submitted and approved by the Ohio EPA before any site is authorized in a county which is not included in the original detail plan.
- 4) The detail plan approval shall be issued to the generating entity or the application contractor, or both, to insure that proper sludge analysis, handling, storage, and spreading techniques will be employed to prevent or minimize nuisances, health hazards, and water pollution. A detail plan approval issued to both the generating entity and the application contractor should make it clear that the generating entity is still responsible for proper disposal or utilization.

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- 5) When sludge is transported into any Ohio EPA district from another Ohio EPA district, the detail plan approval for the land application shall be processed jointly by the Ohio EPA district office responsible for the treatment plant and the Ohio EPA district office responsible for the county in which the sludge is to be applied. Sludge imported from another state will require cooperation between the Ohio EPA and the exporting state prior to processing the application of the detail plan for the land application of sludge.

* This bulletin is also known as Ohio Agricultural Research and Development Center Research Bulletin 1079

B) Site Authorization

Sludge processed to comply with the definition of composted sludge in the Ohio EPA Land Application of Sludge Manual will not require site inspections or site authorization by Ohio EPA. For all other types of stabilized sludge, the following is required.

- 1) A site inspection request shall be submitted to the appropriate Ohio EPA district office. The request shall list each farm to be utilized and information relating to the location and the general suitability of the land for the proposed applications in compliance with A, above.
- 2) Site evaluations will be conducted by the Ohio EPA district offices. Representatives from the generating entity and other interested parties such as the local health department, the extension service, the respective farmer, and the application contractor may be included in the evaluation. Proper operational procedures and potential problems should be discussed and resolved at this time.
- 3) The farms to be utilized should be evaluated and a detailed report should be written. The district office's authorization for each farm should indicate specific requirements for monitoring the particular operation. This may include, but is not limited to the monitoring of any of the following: sludge, soil, drainage ditches, adjacent waterways, and plant or crop analysis. Important factors to consider are the characteristics of the sludge and soils, the volumes to be applied, and duration of application.
- 4) Individual sites shall be inspected to determine compliance with the approved detail plan and shall be authorized to receive sludge by written verification from district office personnel before land application is implemented.

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C. Existing Operations

- 1) Land application operations which were approved prior to the effective date of this policy may be required to submit a new detail plan if it is determined that such action is necessary, for example, to abate a nuisance, health hazard, or environmental hazard, or to establish standards which will permit authorizing additional application sites.
- 2) Land application operations which have never been specifically approved in writing by the Ohio Department of Health or by the Ohio EPA shall obtain an approved detail plan within one year of the effective date of this policy. No new application sites may be authorized until a detail plan has been approved.

Lagoons

- A) Sludge lagoon operation which were approved prior to the effective date of this policy may be required to submit a new detail plan if it is determined that such action is necessary, for example, to abate a nuisance, health hazard, or environmental hazard, or to establish standards which will permit authorizing additional sludge sites.
- B) Sludge lagoon operations which have never been specifically approved in writing by the Ohio Department of Health of the Ohio EPA shall obtain an approved detail plan within one year of the effective date of this policy. No new sludge lagoon sites may be authorized until a detail plan has been approved.

Incineration

Incinerator operations must comply with applicable procedures and regulations of Ohio EPA and the local air agency having jurisdiction. Responsibility for these functions lies with the Ohio EPA Division of Air Pollution Control and the local air agencies pursuant to Ohio Revised Code, Chapter 3704. Public incinerators which dispose of solid and/or semi-solid wastes (which includes most sludges) should be licensed as solid waste disposal sites and are subject to the applicable sections of the solid waste disposal regulations. However, sludge disposal incinerators are usually operated as part of, and on the site of, a wastewater treatment facility and, therefore, will not be licensed or regulated separately as solid waste disposal facilities.

Sanitary Landfill Disposal

- A) Plans for disposal of grit, screenings, sludge, and incinerator residues in sanitary landfills are evaluated by the Divisions of Solid and Infectious Waste and/or Hazardous Waste Management. Plan approval is based on site evaluation, sludge characteristics, and proposed operational methods.
- B) The identified landfill or burial site will require a permit to install as a potential source of water pollution and must

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be licensed for the specific type of material being disposed pursuant to Chapter 3734 of the Ohio Revised Code, and Rule 3745-27 of the Ohio Administrative Code.

- C) Industrial sludges in particular will require detail analysis prior to approval of the specific landfill and operational techniques. See Part V below.

Land Application Other Than Stabilized Sewage Sludge

- A) Because of the highly variable and potentially hazardous nature of any industrial sludges and unstabilized sludge, each proposal must be carefully evaluated on a case-by-case basis. If the sludge is hazardous as defined by Section 3734.01 of the Ohio Revised Code, the application must also be evaluated by the Divisions of Solid and Infectious Waste and/or Hazardous Waste Management. Particular attention should be given to the prevention of ground and surface water pollution.
- B) Plan approvals given to an industrial generator must clearly specify the conditions and restrictions applicable to the particular operation, such as monitoring wells, periodic sludge and soil analysis, design, storage, handling, and other operating requirements.
- C) Land applications of water treatment and air pollution control sludges are not extensively practiced. However, where such applications are proposed, Ohio EPA Division of Surface Water will exercise plan approval authority under Ohio Revised Code, Sections 6111.45 and 6111.46.

Land Reclamation

- A) Proposals for disposal of use of sludges (most commonly sewage sludge) for reclaiming land will be treated as either landfilling or land application, depending on the specific procedures to be utilized. Ohio EPA Division of Solid and Infectious Waste and/or Hazardous Waste Management and Division of Surface Water should coordinate as necessary with the Ohio Department of Natural Resources, Division of Reclamation.
- B) Since there is no concise guide for the use of sludge in land reclamation, specific operational procedures, application rates, and monitoring requirements may require more detailed treatment in the plan review and approval process. It is expected that experience over time with similar proposals will result in the use of some standard requirements and procedures for strip mine application.

Other Methods

- A) Methods of sludge management not identified above will be the responsibility of the appropriate division according to the type of operation proposed, and the methods to be employed.

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- B) Any temporary or indefinite storage of sludge in drying beds, on flood plains, or the plant premises or elsewhere, falls under Ohio EPA authority through the general provisions of Ohio Revised Code, Section 6111.46. Such "temporary" storage should be considered in the evaluation of plans for new treatment works, and plans should be requested of existing facilities currently practicing (or proposing to practice) these methods of management. Such plans are to be critically reviewed with the intent of requiring a more acceptable and final method of management, such as, land application, landfill, composting, or incineration, where such alternatives are available.