

**EAST NOTTINGHAM TOWNSHIP
ZONING ORDINANCE**

**ARTICLE XV
LAND APPLICATION OF SLUDGE**

SECTION 1501 GENERAL

To insure the natural resources of the Township are protected against environmental hazards and also to protect the health and safety of the Township residents, as well as to allow a potentially valuable resource to be used, sludge may be applied to the land in the R-1 and R-2 Districts of the Township subject to the following regulations:

- A. Authorization. The provisions of this section are enacted pursuant to the authority granted to the Township under the Municipalities Planning Code, Act 247, Article VI, and the Pennsylvania Solid Waste Management Act as amended, with respect to protecting health and public safety of Township residents through the proper use of land and natural resources.
- B. Filing and Application. The person generating sludge, or the person proposing to haul and apply sludge to any property, or any person intending to store sludge in the Township shall submit to the Township an application for special exception pursuant to the provisions of Article XXII of this ordinance. The owner of the property upon which sludge is to be disposed shall be a party to such application. Each site proposed for land application shall require a separate special exception. Applications shall include the following information to assist the Zoning Hearing Board in its review of each application, and to supply the Township with adequate data on which to base input into the review by the Department of Environmental Protection for permitting sludge land application.
1. A description of the proposed application program, including the source or sources of the sludge and how it is to be transported to the site, a time table for application, a description of any storage operations, the proposed utilization rate, the total acreage involved, and the useful life of the proposed sites.
 2. A copy of the application for a permit for sludge utilization and disposal as submitted to the Pennsylvania Department of Environmental Protection.
 3. A survey of the property, prepared by a professional surveyor at a scale no greater than one inch to two hundred feet, indicating:
 - a. Topographical features of the tract using two-foot contour lines,
 - b. Soil types and their boundaries,
 - c. Identification of adjacent property owners.

- d. Location of all public and private water supplies within one-quarter mile of the site boundaries, including wells, springs, and other water bodies.
4. A soils and geotoxic report indicating the physical characteristics of the site with respect to its suitability for application of sludge. The report shall be based on available soil survey and geologic data, and accompanied by field test analysis. Field test shall include:
- a. Soil borings by a soil scientist to confirm that actual soil profile characteristics are consistent with published soil survey data.
 - b. Groundwater monitoring well(s) shall be established to test water quality prior to, during, and after the application program. Groundwater composition shall be included in the application, along with subsequent quarterly monitoring during the application program. Prior to drilling any monitoring well, the Township Engineer must approve its location. In the event that the groundwater is found to flow in several directions, a monitoring well for each direction shall be required.
5. A chemical analysis of the sludge from each proposed source. The analysis shall be done by an independent laboratory approved by the Township and shall involve a minimum of three samples. The analysis shall include the following items:
- a. Total moisture content.
 - b. Percent total nitrogen (wet and dry weight)
 - c. Percent ammonia nitrogen (wet and dry weight)
 - d. Percent organic nitrogen (wet and dry weight)
 - e. Biochemical oxygen demand.
 - f. Ph
 - g. Percent (on a dry weight basis) of cyanide, sodium, cadmium, zinc, copper, nickel, lead, chromium, mercury, molybdenum, and other toxic substances and pathogens.

Additional analysis may be required by the Township Engineer from time to time during the application program to insure sludge content remains within the limits established by the Pennsylvania Department of Environmental Protection. At minimum, the monitoring program shall include four samples a year.

Sludge analysis shall show recommended rates and lifetime loading.

- 6. A copy of the agreement between the generator of the sludge or the hauler and applicator and the landowner, showing provisions as to the term of the

agreement, the operation to be carried out in spreading sludge, and the keeping of records.

- C. Standards: The standards for application of sludge to the land shall be in accordance with the currently adopted standards of the Pennsylvania Department of Environmental Protection as set forth in Chapter 75, Title 25, Rules and Regulations, Department of Environmental Protection, except that the following additional requirements shall be imposed.
1. Area. No site shall be approved for land application of sludge that has a gross lot area less than ten (10) contiguous acres.
 2. Distances from property line. No sludge is to be disposed of at a point closer than one hundred (100) feet to any property line.
 3. Slope Considerations. Application shall not take place on slopes exceeding fifteen (15%) percent.
 4. Access: All sites to be considered for sludge application shall have direct access to an improved public road with a mud-free driveway to insure safe access of delivery trucks and to prevent potential congestion, and excessive wear and tear on public roads. In the event access to a site is along a non-improved road, the Township shall require the applicant to bear the cost of upgrading the road to meet all standards of a public improved and paved road in order to accommodate the number and weight of trucks anticipated visiting the site. It shall include, if necessary, the acquisition of rights-of-way and improvement thereof. In no case shall the access road be less than eighteen (18) feet in width. The access road shall be paved in accordance with the standards for public roads in the Township Subdivision/Land Development Ordinance.
 5. Records. All applicants shall retain records on each application and these records shall be submitted to the Township upon request.

SECTION 1502 STORAGE OF SLUDGE

Storage of sludge shall be governed by the following regulations:

- A. Sludge storage facilities shall be designed and constructed in accordance with prevailing regulations of the Pennsylvania Department of Environmental Protection. No storage facility may have a capacity greater than 500,000 gallons of liquid sludge.

- B. All sludge storage facilities shall be lined and covered with impervious material.
- C. A storage site shall have a minimum gross lot area of ten (10) contiguous acres and storage facilities shall be set back a minimum of one hundred (100) feet from any property line.
- D. A storage facility shall be enclosed by a fence having a minimum height of six (6) feet, which prevents trespassing. Entrance and exit gates shall be locked during non-use.
- E. A storage facility shall have direct access to an improved public road with a mud-free driveway to insure safe access of delivery trucks and to prevent potential congestion, and excessive wear and tear on public roads. In the event access to a site is along a non-improved road, the Township shall require the applicant to bear the cost of upgrading the road to meet all standards of a public improved and paved road in order to accommodate the number and weight of trucks anticipated visiting the site. It shall include, if necessary, the acquisition of rights-of-way and improvement thereof. In no case shall the access road be less than eighteen (18) feet in width. The access road shall be paved in accordance with the standards for public roads in the Township Subdivision/Land Development Ordinance.
- F. A delivery schedule shall be submitted to the Township prior to the issuance of a zoning permit. The schedule shall indicate the number of deliveries and types of trucks to be used. All deliveries shall occur during daylight hours.
- G. A groundwater monitoring well(s) shall be required to test water quality during the storage program. Prior to drilling, the Township Engineer must approve the location of monitoring wells.

SECTION 1503 BONDS

- A. Performance Bond. In order to assure the Township that the Various tests and duties imposed upon an applicant by this ordinance are fully performed, sufficient surety for such performance shall be posted by the applicant before approval of a special exception. The applicant shall assure the Township by means of a corporate bond or deposit of funds or securities in escrow sufficient to cover the cost, as estimated by the Township Engineer, of performing the various tests and duties imposed upon him by the ordinance over the expected useful life of the site, plus five (5) years. The bond shall be furnished under such conditions and form and with surety as shall be approved by the Township Solicitor to guarantee and secure that all such tests and duties are fully and adequately performed and are paid for the by applicant and that the Township shall, in no event, be held liable for the cost of any such duties or tests. In lieu of a bond, the applicant may deposit cash or securities with the Township or a bank or trust company to guarantee and secure the same requirements as set forth above. In the event that

such cash or securities are deposited, said deposit must be made pursuant to an escrow agreement prepared and approved by the Township Solicitor. The escrow agent for the deposit of such cash or security shall be located in Chester County and shall be subject to the approval by the Township Solicitor.

- B. Improvement Bond. In order to assure the Township that any improvements necessary to be performed by an applicant under the terms of this ordinance are completely made and maintained, an applicant shall post a sufficient surety for such improvements before approval of a special exception. The applicant shall assure the Township by means of a corporate bond or the deposit of funds or securities in escrow sufficient to cover the cost, as estimated by the Township Engineer, of making and maintaining necessary improvements. The bond shall be furnished under such conditions and form and with surety as shall be approved by the Township Solicitor to guarantee and secure that all improvements are made and maintained and are paid for by the applicant and that the Township shall, in no event, be held liable for the cost of any such improvements. In lieu of a bond, the applicant may deposit cash or securities with the Township or a bank or trust company to guarantee and secure the same requirements as set forth above. In the event that such cash or securities are deposited, said deposit must be made pursuant to an escrow agreement prepared and approved by the Township Solicitor. The escrow agent for the deposit of such cash or security shall be located in Chester County and shall be subject to approval by the Township Solicitor.
- C. Indemnification. In addition to the foregoing requirement, all applicants for permits to utilize sludge upon property within the Township of East Nottingham shall, prior to the issuing of any permit for sludge application and/or storage, deliver to the Township, a liability indemnification with bond good for the useful life of the proposed site plus five (5) years, on a form to be prepared by and approved by the Township Solicitor, pursuant to the terms of which, the applicant, individually and with surety, specifically agrees to full indemnify and hold harmless the Township and all of its officers, agents, and employees from any and all liability, expenses, or damages whatsoever and litigation defense costs accruing to any or the same as a result of any use of any land in the Township pursuant to the provisions thereof.

The amount of the indemnification bond shall be equal to the cost of removal and/or clean up of any site and any engineering or legal fees pertaining thereto as estimated by the Township Engineer and Township Solicitor at the time of issuance of any permit, plus fifteen (15%) per cent per year thereof for the useful life of the site plus five (5) years.