

Indiana Department of Environmental Management  
Office of Land Quality  
P.O. Box 6015  
Indianapolis, IN 46206-6015  
OLQ PH: (317) 232-8941

**Title:** Storage of Type III Foundry Sands Prior To Legitimate Use

**Identification Number:** WASTE-0027-NPD

**Date Originally Adopted:** April 9, 1998

**Dates Revised:** None

**Other Policies Repealed or Amended:** None

**Citations Affected:** IC 13-19-3-7; 329 IAC 10-2; 329 IAC 10-9

**Brief Description of Subject Matter:** Type III foundry sands may be stored for legitimate use in a manner that complies with state regulations and is protective of the environment.

This nonrule policy document is intended solely as guidance and does not have the effect of law or represent formal Indiana Department of Environmental Management (IDEM) decisions or final actions. This nonrule policy document shall be used in conjunction with applicable laws. It does not replace applicable laws, and if it conflicts with these laws, the laws shall control. A revision to this nonrule policy document may be put into effect by IDEM once the revised nonrule policy document is made available for public inspection and copying. IDEM will submit revisions to the Indiana Register for publication.

---

## **STORAGE OF TYPE III FOUNDRY SANDS PRIOR TO LEGITIMATE USE**

The Environmental Performance Partnership Agreement between IDEM and U.S. EPA Region 5 (FY 1998-1999) identifies reduction of foundry sand disposal as a strategic goal. IDEM recognizes that prior to use, the accumulation of foundry sands will be necessary in some instances. The following guidance is offered so that type III foundry sands may be stored for legitimate use in a manner that complies with state regulations and is protective of the environment.

House Enrolled Act (HEA) 1541 (P.L.129-1997) includes several uses of foundry sand that meets type III criteria as specified in 329 IAC 10-9-4. This statute, which is codified under IC 13-19-3-7, became effective July 1, 1997. No permit is required for uses covered by the statute, however, a waste classification of type III must be issued by IDEM in order to qualify for such use.

Additionally, Indiana's Solid Waste Rule allows for other uses of foundry sand not covered in the statute. 329 IAC 10-3-1 (14), states that "the legitimate use of foundry sand which has been demonstrated as suitable for restricted waste site type III under the provisions of 329 IAC 10-9-4, including the use as a base for road building, but not including use for land reclamation except as allowed under subdivision (15)" is excluded from regulation as a solid

waste. This exclusion would allow for other uses of type III foundry sand not specified in the above mentioned statute. IDEM approval is required for use under this exclusion.

These guidelines apply only to type III foundry sands that have received a waste classification issued by IDEM **and** will be used in accordance with state regulations. It is not IDEM's intention to include storage of intermediate by-products at the generating facility or short term storage at job sites within the scope of these guidelines. However, these facilities must still comply with 329 IAC 10-2-181, 329 IAC 10-4-2, and IC 13-30-2.

Foundry sands may also contain de minimus quantities of grinder fines, slag, baghouse dust, refractory, spent shot and pattern shop sawdust. **At no time is the foundry sand to be mixed or commingled with hazardous or other non-hazardous industrial waste or municipal solid waste. Additionally, the foundry sand may not be mixed with other aggregate or raw materials unless to meet a product specification.**

Facilities that will be storing foundry sands for more than twenty-four (24) hours should notify IDEM in writing prior to acceptance of foundry sands to avoid any misunderstandings between the facility and IDEM regarding the types of wastes stored, the length of storage, and intended end use. This notification must include, at a minimum, the name of the owner/operator and location of the facility, the source of the foundry sand, facility design, operational plans (including procedures for screening hazardous or other unacceptable wastes), turnover rate, and demonstration that there is a market for the sand and that it will be used within the following six (6) months. To assist IDEM in determining compliance with the definition of storage, a notification should be submitted to IDEM for facilities storing longer than six (6) months to rebut the presumption that disposal has occurred. Facility notifications should be directed to: Industrial Waste Compliance, Office of Land Quality, Indiana Department of Environmental Management, 100 North Senate, P.O. Box 6015, Indianapolis, IN 46206-6015. Please note that approval from local government may also be necessary.

General provisions for the management of solid wastes which can be applied to the stockpiling of foundry sands can be found in the Solid Waste Land Disposal Facilities rule (329 IAC 10) and in Indiana's Environmental Statutes (IC 13) in the following two places:

#### **Definition of Storage - 329 IAC 10-2-181**

Indiana's Solid Waste Rule defines storage as the "retention, containment or accumulation of solid waste on a temporary basis in such a manner that it does not threaten or potentially threaten human health or impact the environment, for a period of more than twenty-four hours, in such a manner as not to constitute disposal of the waste. It must be a rebuttable presumption that storage of waste for more than six (6) months constitutes disposal." Six (6) months may not be adequate time for accumulation considering the volume required for some projects or in the length of the construction season in Indiana. The agency will allow storage of foundry sands for a longer period of time provided that the facility has submitted a notification as discussed earlier and can adequately demonstrate that the material is being stored in an environmentally sound manner and will be used in accordance with state regulations. The storage facility is responsible for maintaining adequate records to demonstrate that the foundry

sands have been used in accordance with state regulations. This may include bills of lading or other shipping papers, receipts, or contracts showing volumes and designated end use. Speculative accumulation will not be permitted. Please note that if a facility accumulates sand for a project and it is not utilized within a reasonable time frame, IDEM will require the sand to be removed and disposed in a permitted facility.

### **Acts Prohibited - 329 IAC 10-4-2 and IC 13-30-2**

Appropriate measures must be taken during the processing and storage of foundry sands to ensure that no threat to the environment or public health is created such as pollution, contamination, and fugitive emissions in accordance with 329 IAC 10-4-2 and IC 13-30-2. The following specific requirements and guidelines will help foundry sand storage facilities, excluding those facilities at generating facilities and those short term facilities at job sites, maintain compliance with Indiana regulations:

1. Storage facilities containing foundry sand stockpiles must prevent the contamination of groundwater by foundry sand.
2. Foundry sand stockpiles must be located on a low permeability barrier such as, but not limited to, the following:
  - a. Concrete or asphalt pads;
  - b. Clay-like soil\* pads;
  - i. Pads constructed of synthetic materials;
    - d. Pads constructed with underdrain systems;
    - e. Alternative designs insuring groundwater protection.
3. The seasonal high groundwater table must be separated from the bottom of stockpiled foundry sand by at least two feet.
4. Storage facilities must also protect surface waters and control the discharge of pollutants from foundry sand. Surface water run-on should be diverted away from foundry sand stockpiles and run-off from foundry sand stockpiles should be properly managed.

A storage facility may not discharge pollutants to surface waters except through a valid National Pollutant Discharge Elimination System (NPDES) permit as identified in 327 IAC 5-2-2. Storage facilities should contact IDEM's Office of Water Management at (317) 232-8760 to determine compliance requirements with the NPDES permit program to prevent pollution of surface waters.

5. Foundry sand stockpiles should not be located within six hundred (600) feet of a potable water well. The six hundred (600) feet setback restriction may be reduced to two hundred (200) feet if a well record is on file with the Department of Natural Resources

confirming that the well integrity is maintained in compliance with the well construction requirements delineated in 310 IAC 16-6.

6. Foundry sand stockpiles should not be located in such a place or manner that would result in the washout of foundry sand caused by the flooding of any body of water. Erosion and sediment controls should be implemented that will prevent the erosion of foundry sand and subsequent deposition of foundry sand off of the storage facility boundaries.
7. Storage facilities should not be located in the critical habitat of an endangered species, within areas of karst topography or within fifty (50) feet of the real property boundaries of the facility.
8. Storage facilities should control public access during normal business hours and restrict public access during non-operational periods.
9. Storage facilities should implement appropriate management practices to prevent offensive and noxious odors and fugitive dust from leaving the site.
10. Screening procedures should be in place at both the generating facility and storage facility to ensure that only source segregated type III foundry sands are accepted at the storage facility. These procedures should include methods for detecting hazardous waste, special waste, general solid waste or any unacceptable waste. All unacceptable waste received at the storage facility must be removed and properly disposed immediately. Additional steps should be taken to ensure that changes in the waste or its characteristics are tracked and that IDEM is informed of those changes immediately. It should also be noted that the end-user may require additional tests such as the Microtox™ prior to acceptance for use.
11. Storage facilities must ensure that the final disposition of foundry sand is environmentally acceptable and in compliance with all applicable regulations.

\* *Clay like soils are soils such as: clays, sandy clays, silty clays, sandy silty clays, silts, sandy silts, clayey sands or clays without organic matter, able to achieve a hydraulic conductivity of  $1 \times 10^{-6}$  centimeters per second or less. Clay-like soil pads should be two feet thick, whether naturally occurring or constructed with recompacted soil.*

Since every site is unique, some factors or situations concerning the storage of type III foundry sands may not be addressed in this guidance document. Additional guidance regarding waste classification and use of foundry sand is available. If you need additional information, or have any questions or concerns, please contact staff in the Industrial Waste Compliance Section, Office of Land Quality at 317/308-3103. The IDEM toll-free number is 1-800-451-6027.