

SPECIAL CONDITIONS
GENERAL PERMIT NO. WMGR098

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1. The approval herein granted is limited to the beneficial use of waste foundry system sand and sand system dusts (hereinafter referred to as waste foundry sand) generated by ferrous metal foundries and steel foundries [North American Industry Classification System (NAICS) Codes 33151, 331511, 331512, 331513] for use as a construction material, or as a soil additive or soil amendment, provided the waste foundry sand does not exceed the chemical limits in Condition 3, and conforms with the applicable engineering properties as the raw material it is being substituted for. All such uses shall be consistent with applicable standard engineering or other professional or industry practices and procedures.
2. This approval only applies to waste foundry sand from clay-bonded molds generated by ferrous metal foundries and steel foundries or such foundries that utilize chemical binders only in the core making process.
3. Waste foundry sand shall not be used as construction material, soil additive or soil amendment or otherwise placed directly into the environment if any of the total or leachable levels in Table I are exceeded.

<u>Inorganic Parameters</u>	Table I	
	Total Levels (mg/kg)	Leachable Levels(1) (mg/L)
Aluminum	----	5.0
Antimony	27	0.15
Arsenic	12	1.25
Barium	5000	50.0
Beryllium	1.0	0.10
Boron	1000	3.15
Cadmium	20	0.125
Chromium (total)	500	2.5
Chromium (hexavalent)	94	----
Copper	700	32.5
Cyanide (total)	----	0.2
Fluoride	----	7.5
Iron	----	30
Lead	200	1.25
Manganese	500	2.5
Mercury	10	0.05
Molybdenum	100	4.375
Nickel	200	2.5
pH	5.5 to 11.5	----
Selenium	26	1.0
Silver	84	2.5
Thallium	6.0	0.0125
Zinc	1000	125

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Table I (cont'd)

<u>Organic Parameters</u>	<u>Total Levels (mg/kg)</u>	<u>Leachable Levels(1) (mg/L)</u>
Benzene	0.8	0.005
Benzoic Acid	0.57	----
Ethylbenzene	70	0.7
Napthalene	8.0	---
PHCs(2) (total)	500	---
Phenanthrene	80	---
Phenolics (total)	400	21
Resorcinol(3)	0.08	----
Toluene	100	1.0
TOX(4)	50.0	----
1,2,4 – Trimethylbenzene	11.0	----
Xylene (total)	1000	10.0
PCBs (for mined sands only)		
Non-residential uses(5)	2	----
Residential uses(5)	1	----

The determination of compliance with Table I may be based on the 90 percent upper confidence level for each metal or the 80 percent confidence interval for pH using the “Test Methods for Evaluating Solid Waste (EPA SW-846)” as guidance for the statistical treatment of data.

- (1) = Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311) or the Synthetic Precipitation Leaching Procedure (EPA method 1312).
 - (2) = Petroleum Hydrocarbons
 - (3) = AKA m-dihydroxbenzene or 1,3 – (HO)2C6H4
 - (4) = Total Organic Halogens
 - (5) = The sample preparation for PCB determinations shall be EPA Method 3545.
4. Prior to the first beneficial use of any waste foundry sand as a construction material or where placed directly into the environment under the provisions of this permit, a representative sample of the waste foundry sand shall be analyzed for the total and leachable levels for each parameter listed in Condition 3. The chemical analyses required in this Condition shall be performed by a laboratory that is in compliance with the Pennsylvania Environmental Laboratory Accreditation Act, Act of 2002, No. 90, 27Pa C.S. Section 4101 et seq. If any changes are made in the types of sand binder systems, coatings, or types of metals, or metal alloys being cast, the waste foundry sand must be reanalyzed prior to the beneficial use of the altered waste foundry sand. All samples of waste foundry sand taken for analysis must be taken at the point where the spent waste foundry sand is discharged from the generating facility prior to storage and/or beneficial use.

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5. Waste foundry sand obtained from the excavation or "mining" of storage stockpiles or previously disposed piles of waste foundry sand shall not be used for beneficial use purposes without first being analyzed for compliance with the chemical parameters specified in Condition 3 and the binders' limitation specified in Condition 2. Samples from these storage stockpiles or disposal piles shall be collected and tested at a minimum frequency of:
 - a. For the inorganic parameters in Condition 3, one grab sample for every 50 tons of waste foundry sand which is excavated or mined. These grab samples shall be composited into a single sample, which is to be analyzed after every 1000 tons of waste foundry sand, is excavated or mined from existing stockpiles for beneficial use purposes.
 - b. For the organic parameters in Condition 3, one grab sample shall be collected and analyzed for every 1000 tons of waste foundry sand excavated or mined from existing stockpiles.
 - c. For existing stockpiles or disposal piles over 500 cu.yds. in volume, the permittee must characterize the stockpile or disposal pile in accordance with procedures and methods specified in SW-846 and obtain specific written approval from the Department to utilize the waste foundry sand under this general permit. All applicable MSDSs should also be provided with this analytical data.

Should knowledge of the generation process, visual observations, or analytical results indicate variability in the quality of the waste foundry sand, more frequent testing shall be conducted.

6. The permittee shall inform all persons or municipalities which propose to beneficially use waste foundry sands covered under this permit of all the conditions and limitations imposed on the use of waste foundry sand by the Department of Environmental Protection. This notification shall be by providing a copy of Appendix "A (Use Restrictions)" of this permit. The conditions in Appendix A also apply to any permittee who obtains a Determination of Applicability to conduct activities authorized by this permit. The permittee shall record the name and address of each person who is given or purchases the waste foundry sand and shall record its intended use. This information shall be included in the annual report required in Condition 11.
7. Equipment used for the storage and transportation of the waste foundry sand shall be maintained in good operating condition to prevent wastes from being unintentionally conveyed out of the storage area. Weekly inspections of each storage area and their surrounding environs are to be conducted to determine permit compliance. The storage and transportation of waste foundry sand shall be in a manner which does not create a nuisance or be harmful to the public health, safety or the environment and shall comply with the requirements of 25 PA Code Chapter 299 (relating to storage and transportation of residual waste).

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8. Upon cessation of foundry and storage operations, the permittee shall remove any remaining waste foundry sand and any other residual wastes or other materials which contain or have been contaminated by the waste foundry sand 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.
9. The permittee shall immediately notify the Department, in writing, of any changes in: the name, address, owners, operators and/or responsible officials of the company; changes in facility location; changes in land ownership or the right to operate on the land occupied; the physical or chemical characteristics of the waste foundry sand; the manufacturing process which generates the waste; and any change in the status of any permit issued by the Department or federal government under the environmental protection acts.
10. Records of all analytical evaluations conducted on the waste foundry sand shall be retained and made available to the Department on request. Analytical information on the waste foundry sand shall be retained for a minimum of 5 years and must include the following on each sample; the dates of sampling and testing, sampling procedures, person collecting the sample, the volume or weight of the sample, each parameter tested, the analytical results, the laboratory used, and analytical methodologies.
11. Persons operating under the provisions of this general permit shall submit, by the anniversary date of this permit, to the Department's Bureau of Land Recycling and Waste Management, at address in Condition 22, an annual report which contains the information outlined in Condition 6 and summarizes the weight or volume of the waste foundry sand sold, traded or given away during the last 12 months. In addition, the annual report must also include the following:

A "total" and "leaching" analysis performed on a representative sample of the waste foundry sand annually for all the parameters listed in Table I of Condition 3 of this permit. After a satisfactory initial analysis has been completed and submitted to the Department, in lieu of the annual analysis, an authorized representative of the generator may sign and submit to the Department, an analysis certification for all the parameters in Table I that do not exceed 65% of the specified permit limit and the process by which the waste foundry sand was generated has not changed from that specified in the original permit application. However, this analysis certification may only be used for (5) consecutive years, after which the complete analysis required in Condition 3 must once again be completed.
12. The permittee shall comply with the fugitive emissions regulations under Title 25 Pa. Code, Chapter 123 (Standards for Contaminants) issued under the Air Pollution Control Act, the Act of January 3, 1960, P.L. 2119, 35 P.S. §4005 and shall comply with all the applicable provisions of the Fugitive Emissions Sections 123.1 and 123.2.
13. 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, providing that said local law, ordinance, or regulation is not preempted by the Pennsylvania Solid Waste Management Act, 35 P.S.

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§6018.101 et seq.; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. 4000.101 et seq.

14. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and 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 to and to inspect all areas on which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; take photographs; to perform measurements, surveys, and other tests; inspect any monitoring equipment; to inspect the methods of operation and to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with Section 608 and 610(7) of the Solid Waste Management Act, 35 P.S. Section 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
15. 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 the threat of harm to the public health, or the environment, or if they cannot be adequately regulated under the conditions of this permit.
16. 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 be obtained if the permittee cannot comply 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.
17. Any independent contractors or agents retained by the permittee to conduct the beneficial use activities authorized under this permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the Solid Waste Management Act of 1980, as amended.
18. 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 as described in the approved application.
19. This permit does not authorize and shall not be construed as an approval to discharge any industrial wastes or wastewater to the waters of the Commonwealth. Any treatment of leachate and wash water, or other wastewater shall be managed at a treatment facility that is operated and in compliance with the Clean Streams Law and the regulations promulgated hereunder.

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20. Failure of the design, equipment, and/or methods 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.
21. The permittee shall maintain at the generating facility an updated copy of a Preparedness, Prevention, and Contingency (PPC) Plan for the facility prepared in accordance with the most recent edition of the Department's "Guidelines for the Development and Implementation of Environmental Emergency Response Plans". The PPC Plan shall be updated at least every 5 years.
22. Persons or municipalities which propose to operate under the terms and conditions of this general permit, after the date of permit issuance, must obtain a "Determination of Applicability" from the Department's Bureau of Land Recycling and Waste Management, Division of Municipal and Residual Waste, P.O. Box 8472, Harrisburg, PA 17105-8472. No activities shall commence unless specifically authorized by the Department in writing.

At a minimum, the following information must be provided on forms available from the Department's Bureau of Land Recycling and Waste Management:

- a. Name and street address of applicant.
- b. A chemical and physical analysis, and description of the waste that fully characterizes its composition and properties.
- c. Name and location of the generator of the waste.
- d. A description of the manufacturing and production processes that generates the waste, which includes detailed information on the chemical constituents in all binders, coatings or other chemicals used in the production process.
- e. A waste evaluation plan for sampling, testing and monitoring new quantities of waste foundry sand, which includes procedures on handling rejected waste foundry sand.
- f. Description of method of processing and/or beneficial use.
- g. Number and title of the general permit.
- h. Evidence the waste and waste management activities are consistent with the general permit.
- i. 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.
- j. An application fee in the amount required under Section 287.642(b) of the residual waste regulations made payable to the "Commonwealth of Pennsylvania".
- k. Proof that copies of the application have been submitted to each municipality, county, county planning agency and county health department in which the first beneficial use activity is or will be located.
- l. Proof that the applicant has the legal right to enter the land and conduct the activities authorized under this permit, if applicable.

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- m. An irrevocable written consent from the landowner giving the Department permission to enter upon land where the applicant/generator will be conducting waste management activities.
 - n. Information which identifies the applicant (i.e. individual, corporation, partnership, government agency, association, etc.), including the names and addresses of every officer, which has a beneficial interest in or otherwise controls the operation of the company.
 - o. A list of all previous permits or licenses issued by the Department or Federal government under the environmental protection acts; the dates issued, status and compliance history concerning environmental protection acts.
 - p. A copy of the applicant's generating facility's Preparedness, Prevention, and Contingency (PPC) Plan, which is consistent with the Department's most recent guidelines on the development and implementation of PPC plans.
 - q. Proof that independent contractors retained by the permittee to perform any beneficial use activities authorized under this permit are in compliance with the Department's regulations as required in Condition 17.
23. The waste foundry sand authorized under the terms and conditions of this general permit shall cease to be a waste if the following requirements are met:
- a. The waste foundry sand complies with the requirements as specified in Conditions 2 and 3 of this general permit;
 - b. The waste foundry sand is sold, traded, distributed or given away for the uses specified in this general permit;
 - c. The waste foundry sand is not abandoned or disposed; and
 - d. The beneficial use of the waste foundry sand complies with the terms and conditions specified in the Appendix A "User Restrictions" of this general permit.

APPENDIX "A"
USE RESTRICTIONS
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A1

The following uses and restrictions apply to the beneficial use of waste foundry sands and sand system dusts generated by ferrous metal foundries and steel foundries [North American Industry Classification System (NAICS) Codes 33151, 331511, 331512, 331513] for use as a construction material, or as a soil additive or soil amendment. Each beneficial use of waste foundry sand is limited to the amount that is customarily and commonly appropriate in practice. Persons receiving, storing and/or using the waste foundry sand for beneficial use purposes must comply with the following:

ACCEPTABLE USES:

A1. Approval is granted for use of waste foundry sand in the following applications provided its use meets and satisfies the requirements of the following standards where applicable. All such uses shall be consistent with applicable standard engineering or other professional or industry practices and procedures.

a. As a construction material:

Waste foundry sand may be used as construction material in the base and/or sub-base under roads, sidewalks, parking lots, athletic fields and buildings, in embankments, as pipe bedding, as trench backfill, as backfill on locations where underground storage tanks or petroleum-contaminated soil has been removed. Areas where waste foundry sand is used as a construction material shall either be paved or covered with a minimum of six inches of vegetative supporting soil or cover by a building or other structure. For unpaved parking lot areas a minimum of six inches of stone or other non-waste aggregate must be used to cover the waste foundry sand. For embankment use the waste foundry sand must be covered with a minimum of 6 inches of vegetative supporting soil or non-waste aggregate.

b. As a soil additive or soil amendment:

Waste foundry sand may be used as a soil additive or soil amendment to replace soil that was previously available at a site, in order to enhance soil properties and to enhance plant growth provided the organic carbon fraction of the soil (before blending with waste foundry sand) is at least 0.25%.

USE RESTRICTIONS:

A2. Waste foundry sand shall not be placed in direct contact with surface water or groundwater and, except for bagged soil products, placed or used in any construction activity within 100 feet of a perennial stream, 300 feet of an exceptional value wetland or 300 feet of a private or public water source.

APPENDIX "A"
USE RESTRICTIONS
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- A3. Waste foundry sand shall not be used as a valley fill material, to fill open pits from coal or non-coal mining or other fills or to seal boreholes or water wells. The waste foundry sand may be used as embankment material to level an area or bring an area to grade where a construction activity is completed or will commence within three months after the placement of the waste foundry sand. In the case of a multi-phase construction project (such as development of a commercial/industrial park), all waste foundry sand shall be covered within sixty days of completion of fill placement, unless it is uncovered as a requirement of ongoing active phase construction.
- A4. Hazardous waste, municipal waste, special handling waste, and other residual wastes may not be mixed and/or stored or beneficially used with the waste foundry sand without prior written approval by the Department on a case-by-case basis or under the authority of another general permit.
- A5. Waste foundry sand shall not to be stored for more than one year unless specifically approved by the Department in writing.
- A6. The storage, transportation or use of the waste foundry sand shall be in a manner that will not create a nuisance or be harmful to the public health, safety or the environment.
- A7. Runoff from the waste foundry sand storage areas shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder.