



Mike DeWine, Governor
Jon Husted, Lt. Governor
Laurie A. Stevenson, Director

AUGUST 16, 2019

James Hemmelgarn
Hemmelgarn Services, Inc.
624 N Knoop-Johnston Rd
Sidney, Ohio 45365

Re: Hemmelgarn Services, Inc.
Permit – Short Term
Approval
Beneficial Use
Shelby
BENU023480

Subject: Hemmelgarn Services, Inc.
Individual Beneficial Use Permit
Foundry Sand from Ross Aluminum Castings LLC

Effective Date: **AUGUST 16, 2019**

Expiration Date: **AUGUST 16, 2024**

Dear Mr. Hemmelgarn:

Ohio EPA AUG 16 '19
Entered Directors Journal

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed the individual beneficial use permit application submitted by Hemmelgarn Services, Inc. (Hemmelgarn Services) requesting to use Foundry Sand from the Ross Aluminum Castings LLC foundry located at 815 Oak Avenue in Sidney, Ohio (Ross Aluminum Foundry). The Foundry Sand will be used as an ingredient in a Soil Blend, which can then be placed on the land for use as road construction sub-base or structural fill.

Pursuant to the authority of the Director under Ohio Revised Code (ORC) Chapters 6111 and 3734 and Ohio Administrative Code (OAC) Chapter 3745-599, this Permit is subject to compliance with applicable provisions of OAC Chapter 3745-599 and all terms and conditions contained within this Permit and the permit application. The beneficial use of Foundry Sand in accordance with this Permit and in compliance with OAC Chapter 3745-599 and other applicable laws is unlikely to adversely impact the public health or safety or the environment.

This Permit authorizes Hemmelgarn Services to beneficially use eligible Foundry Sand as an ingredient in a Soil Blend, as those terms are defined in Section A of this Permit, only when that Soil Blend is placed on the land as described in Sections B.2 and D.4. of this Permit. No other use of Foundry Sand or of a Soil Blend is authorized by this Permit. All other materials and beneficial use methods must be separately approved by the Director.

This Permit shall expire at midnight on the expiration date listed above. Hemmelgarn Services may continue activities authorized by this Permit beyond the date of expiration only as provided in OAC Rule 3745-599-360.

This Permit does not relieve Hemmelgarn Services of the duty to comply with all applicable federal, state, and local laws, ordinances, and regulations. Nothing herein shall be construed to release any person, including but not limited to the owner(s) of the land upon which the Foundry

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Sand is placed, from the obligation to comply with all applicable laws governing the placement.

Due to the soil-like properties of the Soil Blend, the Soil Blend, as defined in Section A of this Permit, can be beneficially used by placement on the land as road construction sub-base and structural fill.

A. Definitions

Unless otherwise stated in this Permit, the terms used in this Permit shall have the same meaning as used in OAC Chapter 3745-599. The following definitions are specific to this Permit. As used in this Permit:

"Foundry Sand" means silica sand and binders from sand molds and cores that have been through the production process from foundries that use iron (gray and ductile), steel, and aluminum metals, and either can no longer be reused to cast products, or are in excess of the existing sand system storage.

"Permittee" means Hemmelgarn Services, Inc.

"Soil Blend" means a mixture of Foundry Sand with soil, or with a combination of soil and either Compost Product or Exceptional Quality Biosolids, such that the resulting mixture does not exceed 50% Foundry Sand by volume. Soil Blends shall neither include nor be commingled with other solid waste, construction and demolition debris, pulverized debris, sludge other than Exceptional Quality Biosolids, slag, unfinished compost, or contaminated soil. Soil Blends are nonputrescible, homogeneous, and relatively uniform in texture.

"Structural fill" means a Soil Blend used to create a stable base meeting engineering specifications for use as engineered fill, mechanically stabilized earthen (MSE) walls, or granular fill. Structural Fill does not include material used for filling limestone or sandstones quarries, gravel pits, valleys, or open pits or other industrial mineral mining excavations.

B. Criteria for Issuance of an Individual Beneficial Use Permit

1. Only Foundry Sand generated by the Ross Aluminum Foundry is eligible for blending and beneficial use under this Permit.
2. This Permit authorizes the beneficial use of eligible Foundry Sand only as an ingredient in a Soil Blend that is placed on the land for use as road construction sub-base or Structural Fill.
3. Ohio EPA has determined that a complete application was submitted and that the beneficial use of eligible Foundry Sand that is conducted in accordance with this Permit and OAC Chapter 3745-599:
 - a. is unlikely to cause pollution to waters of the state;
 - b. is unlikely to create a nuisance or adversely affect public health, safety, or the environment;
 - c. and is unlikely to cause air pollution

- d. complies with ORC Section 3734.02(M).
4. The sampling and analysis data submitted by Hemmelgarn Services to Ohio EPA demonstrates that the eligible Foundry Sand for beneficial use under this Permit:
 - a. is not hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03; and
 - b. does not exceed the constituent concentrations in Table 1.

Table 1: Constituent Concentration Limits

Constituent^{1,2}	Totals Analysis³ Constituent Concentration Limits (mg/kg)*
Aluminum (Al)	77000
Antimony (Sb)	31
Arsenic (As)	41
Barium (Ba)	15000
Cadmium (Cd)	39
Copper (Cu)	1500
Iron (Fe)	55000
Lead (Pb)	300
Selenium (Se)	100
Zinc (Zn)	2800

* - dry weight basis

5. For the purposes of this Permit, eligible Foundry Sand of this Permit when placed on the land as an ingredient in a Soil Blend in accordance with this Permit is a beneficial use byproduct as defined in OAC Rule 3745-599-02(B)(2).
6. Hemmelgarn Services may apply for a general permit in accordance with OAC Rule 3745-599-200 or another individual beneficial use permit in accordance with OAC Rule 3745-599-310 for beneficial use of material not covered under this Permit.

¹ Al, Sb, Ba, Fe: US EPA Regional Screening Levels, Residential Soil.

² As, Cd, Cu, Pb, Se, Zn: US EPA 40 CFR Part 503 Pollutant Concentrations (Table 3 of 503.13)

³ EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)," Section 1.2 of the TCLP Method 1311 *does* allow for a total constituent analysis in lieu of the TCLP extraction. "If a total analysis of the waste demonstrates that individual analytes are not present in the waste, or that they are present but at such low concentrations that the appropriate regulatory levels could not possibly be exceeded, the TCLP need not be run."

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C. Notice to Property Owner of Necessary Information

Hemmelgarn Services shall provide the recipient of any Soil Blend with:

1. a statement that the beneficial use byproduct being placed on the land meets the criteria in Section B of this Permit;
2. a copy of this Permit; and
3. a copy of the sampling and analysis data that was submitted to Ohio EPA.

D. Operating Conditions

1. Hemmelgarn Services shall not store, blend, or beneficially use Foundry Sand pursuant to this Permit in any area described in ORC section 3734.02(M), including within the boundaries of a state park, a state park purchase area, any unit of the national park system, any property that lies within the boundaries of a national park or recreation area that is located in this state, or any candidate area located in this state and identified for potential inclusion in the national park system.
2. When there is a change in the generating process, Hemmelgarn Services shall determine constituent concentrations listed in Table 1 through additional sampling and analysis and determine whether the Foundry Sand generated via the new process continues to satisfy the criteria in Sections B.4.a. and B.4.b. of this Permit.
3. Hemmelgarn Services shall cease beneficial use of Foundry Sand pursuant to this Permit if it is determined that the Foundry Sand no longer satisfies the Criteria for Issuance of an Individual Beneficial Use Permit in Sections B.4.a and B.4.b of this Permit.
4. Hemmelgarn Services shall conduct all activities authorized by this Permit in strict accordance with this Permit, the permit application, and OAC Chapter 3745-599. Placement of Foundry Sand on the land that does not strictly comply with this Permit may constitute a violation of Ohio's environmental laws, including ORC Chapters 3734 and 6111.
5. Approval of this Permit does not constitute assurance that the beneficial use of Foundry Sand in accordance with this Permit will comply with all Ohio laws and regulations.
6. Hemmelgarn Services shall retain the following information for a minimum of five years after beneficial use of the Foundry Sand has occurred and Hemmelgarn Services shall make the information available to the Director or an authorized representative of Ohio EPA upon request:
 - a. Records of the annual volume of Foundry Sand that is beneficially used;
 - b. Records of the recipient(s) and the location(s) where Hemmelgarn Services has stored, blended, or beneficially used Foundry Sand, and the volume of Foundry Sand provided to each recipient; and

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- c. All laboratory analyses of the constituent concentrations in the Foundry Sand including documentation demonstrating that the Foundry Sand is not a hazardous waste as defined by ORC section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.
7. Not later than April first of each year Hemmelgarn Services shall submit to the Director an annual report that includes all information required by OAC Rule 3745-599-335 as well as all the following information for the previous calendar year:
 - a. Volume of Foundry Sand beneficially used under this Permit; and
 - b. Volume of Foundry Sand stored for beneficial use under this Permit as of the date of the annual report.
8. The annual report that complies with Section D.7. of this Permit shall be sent to one of the following addresses:

For mailings:

Ohio Environmental Protection Agency
Division of Materials and Waste Management
Attn: Beneficial Use Unit
PO Box 1049
Columbus, OH 43216-1049

or

For hand delivery:

Ohio Environmental Protection Agency
Division of Materials and Waste Management
Attn: Beneficial Use Unit
50 West Town Street, Suite 700
Columbus, OH 43215

9. When storing, blending, and beneficially using Foundry Sand, Hemmelgarn Services shall use Best Management Practices (BMPs) as defined in OAC Rule 3745-599-02. The BMPs shall include, at a minimum, all of the following:
 - a. Storage and blending of any Foundry Sand shall be at least 300 feet from wells and surface waters used for drinking water or watering livestock.
 - b. Storage and blending Foundry Sand shall be at least 100 feet from other surface waters of the state as defined in ORC Section 6111.01(H).
 - c. Unless otherwise provided in a permit issued under ORC Chapter 6111, Hemmelgarn Services shall create surface diversions to catch any solids in runoff and to divert runoff away from waters of the state where Foundry Sand or Soil Blends are stored, blended, or beneficially used by Hemmelgarn Services.

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- d. Beneficial use locations of any Soil Blends used for the purpose of Structural Fill under this Permit shall not be over or within a sensitive groundwater area, including:
 - i. Karst terrain;
 - ii. A sand and gravel pit;
 - iii. A limestone or sandstone quarry;
 - iv. A drinking water source protection area with less than ten feet of low permeability clayey glacial till between the bottom of the fill material and the saturated zone used by the applicable public water supply well as a source of ground water;
 - v. An aquifer designated as capable of yielding one hundred gallons-per minute or more on an Ohio Department of Natural Resources Ground Water Resources map for the county in which the beneficial use activity will take place, which has less than ten feet of separation between the bottom of the fill material and the aquifer.
 - e. Hemmelgarn Services shall take measures to control fugitive dust and other air emissions that may result from activities authorized by this Permit.
 - f. Nothing in Section D.9 of this Permit exempts any person from compliance with OAC Rule 3745-39-04.
10. Hemmelgarn Services shall store, blend, and beneficially use eligible Foundry Sand under this Permit in such a manner that the activities will neither cause a nuisance nor adversely affect public health, safety, or the environment. The Director may revoke this Permit if the Director determines that a nuisance condition or a threat to human health, safety, or the environment exists. Immediately upon the effective date of any written notification from the Director of revocation of this Permit, Hemmelgarn Services shall cease beneficial use under this Permit. The Director may require Hemmelgarn Services to remove the material, remediate the site, or to take other action as appropriate to eliminate the nuisance or threat.
11. Hemmelgarn Services shall conduct all activities in compliance with all applicable local, state, and federal laws and regulations pertaining to environmental protection, including but not limited to the control of air pollution, leachate, and storm water run-on and run-off and protection of groundwater and surface water.
12. Hemmelgarn Services shall conduct all activities in compliance with all other applicable local, state, and federal laws and regulations not explicitly identified in the Permit.
13. To the extent that the eligible Foundry Sand may be considered a solid waste and Hemmelgarn Services would be required to obtain a solid waste permit and license under ORC Chapter 3734 and the rules promulgated thereunder, the Director has determined that granting an exemption from the applicable solid waste provisions of ORC Chapter 3734 to use Foundry Sand as an ingredient in a Soil Blend placed on

the land in the quantities and under the circumstances specifically authorized in this Permit is unlikely to adversely affect public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), Hemmelgarn Services is hereby exempted from the applicable solid waste permit and license provisions of ORC Chapter 3734 and the rules adopted thereunder when the eligible Foundry Sand is stored, blended, and placed on the land for beneficial use, as authorized by this Permit and subject to compliance with all conditions of this Permit and OAC Chapter 3745-599.

14. Nothing in this Permit shall be construed as a waiver from the requirements of ORC Chapter 3734 or the regulations promulgated thereunder, except as expressly provided herein. This Permit shall not be interpreted to release Hemmelgarn Services, any property owner, or other persons from responsibility under ORC Chapters 3704, 3714, or 6111; under the federal Clean Water Act, Resource Conservation and Recovery Act, or Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.
15. Hemmelgarn Services shall not place eligible Foundry Sand into any waters of the United States, including wetlands subject to regulation under Sections 401 and/or 404 of the federal Clean Water Act, or isolated wetlands subject to regulation under ORC Sections 3745.113 and 6111.02 through 6111.029, without first obtaining any required authorizations from the U.S. Army Corps of Engineers and/or Ohio EPA.
16. Hemmelgarn Services shall not cause pollution or cause any Foundry Sand to be placed in a location where it causes pollution to waters of the state, except in accordance with an effective National Pollutant Discharge Elimination System (NPDES) permit. Any unauthorized discharge to waters of the state must be reported to Ohio EPA (call 1-800-282-9378) within twenty-four hours of discovery.
17. To the extent that any provision in the application for this Permit conflicts with a term or condition in this Permit, this Permit shall control. The application shall not be construed to allow the beneficial use of any materials or the utilization of any beneficial use methods not specifically authorized herein.
18. Hemmelgarn Services shall furnish to the Director, or an authorized representative of Ohio EPA, within 30 days of receiving a written request, any information that the Director or an authorized representative of Ohio EPA requests to determine whether cause exists for revoking coverage under or determining compliance with this Permit.
19. Hemmelgarn Services shall comply with OAC Rules 3745-599-05 (general exclusions), 3745-599-20 (prohibitions), 3745-599-25 (signatures), 3745-599-35 (legitimacy criteria), 3745-599-60 (approved sampling and characterization procedures), 3745-599-310 (application), 3745-599-330 (notice of information), 3745-599-334 (record keeping for generators), 3745-599-335 (record keeping for distributors), 3745-599-340 (initial characterization), 3745-599-345 (compliance demonstration), 3734-599-350 (permit changes), and 3734-599-360 (renewal).

E. Property Access

Hemmelgarn Services shall allow the Director or an authorized representative of Ohio EPA to:

1. Enter upon the site where a regulated facility or activity is located or conducted or where records are retained by the Permittee under OAC 3745-599 or the terms and conditions of this Permit.
2. Have access to and copy records that must be kept under OAC Chapter 3745-599 or the terms and conditions of this Permit.
3. Collect samples, perform monitoring, take photographs, perform measurements, surveys, and other tests; and inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under OAC Chapter 3745-599 or this Permit.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to ORC Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
30 East Broad Street, 4th Floor
Columbus, Ohio 43215

You may obtain additional information and current forms and instructions from our website at <http://www.epa.state.oh.us/dmwm/Home/BeneficialUse.aspx>. This is the web address for the beneficial use rules: <http://epa.ohio.gov/dmwm/dmwmnonhazrules.aspx#1269710055-oac-chapter-3745-599-beneficial-use>. If you have questions, please call 614-644-2621 and ask to speak with a member of the Division of Materials and Waste Management's Beneficial Use Unit.

Sincerely,



Laurie A. Stevenson
Director

LS/PC