



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

DECEMBER 26, 2019

Sharon Barnes  
Barnes Nursery, Inc.  
3511 Cleveland Road W  
Huron, Ohio 44898

**Re: Barnes Nursery, Inc.  
Permit – Short Term  
Approval  
Beneficial Use  
Erie County  
BENU020372**

**Subject: Barnes Nursery, Inc.  
Individual Beneficial Use Permit  
Elyria Foundry, Inc. Foundry Sand**

Ohio EPA DEC 26 '19  
Entered Directors Journal

Effective Date: DECEMBER 26, 2019

Expiration Date: DECEMBER 26, 2024

Dear Mrs. Barnes:

The Ohio Environmental Protection Agency (Ohio EPA) has reviewed your individual beneficial use permit application, received March 26, 2019, requesting to beneficially use spent non-toxic foundry sand generated by Elyria Foundry, Inc., located at 120 Filbert Street, Elyria, Ohio. Barnes Nursery, Inc. (Barnes Nursery) purposes to beneficially use 18,000 tons of foundry sand each year as an ingredient in a soil blend, as an ingredient in bioretention soil, as a component in structural fill, as structural fill, and as fill. Pursuant to the authority of the Director of Environmental Protection Agency (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 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 the beneficial use of Foundry Sand, as defined in Section A of this permit and authorizes only the methods specifically identified in Condition B.1. of this permit. Any methods and foundry sand not specifically identified in this permit must be separately approved by the Director.

This permit shall expire at midnight on the expiration date listed above. Barnes Nursery may continue activities authorized by this permit beyond the date of expiration only as provided in OAC Rule 3745-599-360. Upon expiration of this permit, Barnes Nursery is required to obtain any other authorizations required for its activities or legally dispose of the materials.

This permit does not relieve Barnes Nursery 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 sand is placed, from the obligation to comply with all applicable laws governing the placement.

### **Terms and Conditions**

#### **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:

“Bioretention Soil”<sup>1</sup> means soil made up of sand, soil, and leaf compost with specific performance criteria that include high percolation rates to prevent surface ponding, large capacity to sequester pollutants through, and supports the growth of plant populations. Bioretention Soil shall not contain more than 50% foundry sand by volume. Bioretention Soil is nonputrescible, has good cohesiveness, and is relatively uniform in texture. Bioretention Soil does not include soil that contains or is comingled with solid waste, construction and demolition debris, pulverized debris, sludge other than Exceptional Quality Biosolids, slag, unfinished compost, or contaminated soil.

“Compost Product” means compost that meets applicable compost product quality standards as defined in OAC Chapter 3745-560.

“Fill” means Foundry Sand placed on the ground in order to fill an existing depression or hole in the ground, create mounds, or otherwise artificially change the grade or elevation of the property.

“Foundry Sand” means silica sand and binders from sand molds and cores that have been through the production process at Elyria Foundry, Inc.

“Soil Blend” means a mixture of Foundry Sand with soil, or with a combination of soil and Compost Product, such that the resulting mixture does not exceed 50% Foundry Sand by volume. Soil Blends shall neither include nor be comingled with other solid waste, construction and demolition debris, pulverized debris, sludge other than Exceptional

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<sup>1</sup> For information on bioretention practices please refer to this manual: Rainwater and Land Development, “Ohio’s Standards for Stormwater Management Land Development and Urban Stream Protection,” Third Edition 2006. [https://epa.ohio.gov/dsw/storm/technical\\_guidance#176135061-rainwater-and-land-development-manual](https://epa.ohio.gov/dsw/storm/technical_guidance#176135061-rainwater-and-land-development-manual)

Quality Biosolids, slag, unfinished compost, or contaminated soil. Soil Blends are nonputrescible, homogeneous, and relatively uniform in texture.

“Structural Fill” means Foundry Sand used to create a stable base, meeting engineering specifications, for use as engineered fill, mechanically stabilized earthen walls, or granular fill.

## **B. Eligibility and Criteria for Issuance of an Individual Beneficial Use Permit**

1. Only Foundry Sand in which the 95% Upper Confidence Limit (UCL) of the mean for each constituent in the Foundry Sand, determined in accordance with the initial beneficial use byproduct characterization, does not exceed the constituent concentration limits specified in Table 1 is eligible for use under this permit. Analysis submitted to Ohio EPA by Barnes Nursery on March 26, 2019 demonstrated no constituents in the sample analyzed exceeded the Table 1 limits.
2. When there is a change in the general process at Elyria Foundry, Inc., Barnes Nursery shall determine constituent concentrations listed in Table 1 through additional sampling and analysis and demonstrate through a statistical evaluation of the sampling analysis that the 95% UCL of the mean for each constituent does not exceed the limits specified in Table 1.

<b>Constituent<sup>2,3</sup></b>	<b>Totals Analysis (mg/kg)</b>	<b>Leaching Analysis (mg/L)</b>
Aluminum (Al)	77000	4.0
Antimony (Sb)	31	0.12
Barium (Ba)	15000	40
Cadmium (Cd)	39	0.1
Copper (Cu)	1500	26
Iron (Fe)	55000	6.0
Lead (Pb)	300	0.3
Selenium (Se)	100	0.2
Zinc (Zn)	2800	100

**Table 1: Constituent Concentration Limits**

<sup>2</sup> Al, Sb, Ba, Fe: US EPA Regional Screening Levels, Residential Soil; Cd, Cu, Pb, Se, Zn: US EPA 40 Code of Federal Regulations Part 503 Pollutant Concentrations (Table 3 of 503.13).

<sup>3</sup> Al, Sb, Ba, Cd, Cu, Fe, Pb, Zn: TCLP Analysis limits for beneficial use of foundry sand are 20 times the drinking water standard (Maximum Contaminant Levels (MCLs) or Secondary MCLs); Se is 5 times the drinking water standard.

2. Ohio EPA has determined that a complete application was submitted and that the use of eligible Foundry Sand as an ingredient in a Soil Blend, as an ingredient in Bioretention Soil, as a component in Structural Fill, as Structural Fill, or as Fill, when 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. Is unlikely to cause air pollution; and
  - d. Complies with ORC Section 3734.02(M).
3. The sampling and analysis data from the permit application demonstrates that the Foundry Sand as defined in Section A of this permit is not a hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.
4. For the purposes of this permit, Foundry Sand is a beneficial use byproduct as defined in OAC Rule 3745-599-02(B)(2).

**C. Notice of Necessary Information for Distribution**

1. Barnes Nursery shall provide all owners of land upon which Foundry Sand is beneficially used with:
  - a. A statement that the Foundry Sand being distributed meets the criteria in Section B of this permit through quote sheets, website, and invoices; and
  - b. Upon request by a person receiving the Foundry Sand, a copy of this permit, sampling and analysis data in the permit application, and copies of all subsequent sampling and analysis data.

**D. Operating Conditions**

1. Barnes Nursery shall conduct all activities authorized by this permit in strict accordance with this permit, the permit application, and OAC Chapter 3745-599.
2. Barnes Nursery may use Foundry Sand only by employing one of the following methods:
  - a. Use as Fill;



- b. Use as a component in Structural Fill;
  - c. Use as Structural Fill;
  - d. Use as an ingredient in a Soil Blend such that the resulting Soil Blend does not exceed 50% Foundry Sand by volume; or
  - e. Use as an ingredient in a Bioretention Soil such that the resulting Bioretention Soil does not exceed 50% Foundry Sand by volume.
3. Approval of this permit does not constitute assurance that the use of Foundry Sand in accordance with this permit will comply with all Ohio laws and regulations.
4. Barnes Nursery shall cease use of Foundry Sand pursuant to this permit if it is determined that the Foundry Sand no longer satisfies the Eligibility and Criteria for Issuance of an Individual Beneficial Use Permit in Section B of this permit.

**Foundry Sand Storage and Blending Best Management Practices**

5. Barnes Nursery may store Foundry Sand, Soil Blend, and Bioretention Soil at 1630 Camp Road, Huron, Ohio until the expiration date of this permit.
6. When blending Foundry Sand and when storing Foundry Sand, blended Foundry Sand, Soil Blend, or Bioretention Soil, Barnes Nursery 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. Using vegetative stabilization practices, grading, berming, or curbing to prevent runoff and divert run-on away from storage and blending areas;
  - b. Locating storage, stockpiles, and blending operations at least 100 feet from all property lines, functional storm water catch basins, drainage ways, railroad rights of way, post-construction water quality features, and surface waters of the state;
  - c. Unless otherwise provided in a permit issued under ORC Chapter 6111, implementing sediment control practices to catch any solids in runoff or to divert runoff away from all property lines, functional storm water catch basins, drainage ways, railroad rights of way, post construction water quality features, and surface waters of the state;
  - d. Taking measures to control fugitive dust and other air emissions that may result from activities authorized through this permit.

7. Barnes shall not store excess Foundry Sand in areas that are either over or within a sensitive groundwater area, including any of the following:
  - a. Karst terrain;
  - b. A sand and gravel pit;
  - c. A limestone or sandstone quarry;
  - d. 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 ground water;
  - e. An aquifer designated on an Ohio Department of Natural Resources Ground Water Resources map for the county in which the land application activity will take place as capable of yielding one hundred gallons-per minute or more, which has less than ten feet of separation between the bottom of the fill material and the ground water.

#### **Land Application Best Management Practices**

8. Land application locations of any Foundry Sand Fill or Structural Fill under this Permit shall not be over or within a sensitive groundwater area, including:
  - a. Karst terrain;
  - b. A sand and gravel pit;
  - c. A limestone or sandstone quarry;
  - d. 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 ground water;
  - e. An aquifer designated on an Ohio Department of Natural Resources Ground Water Resources map for the county in which the land application activity will take place as capable of yielding one hundred gallons-per minute or more, which has less than ten feet of separation between the bottom of the fill material and the ground water.

#### **Record Keeping and Reporting**

9. Barnes Nursery shall retain the following information for a minimum of five years after use of the Foundry Sand has occurred and Barnes Nursery 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, Soil Blend, and Bioretention Soil used;
  - b. Records of the annual volume of Foundry Sand, Soil Blend, and Bioretention Soil stored;
  - c. Documentation that demonstrates 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;
  - d. The beneficial use application, including the initial beneficial use byproduct characterization with sampling and analysis results detailing where and how samples of Foundry Sand were collected, dates that the samples were collected, and the list of constituents for which samples were analyzed;
  - e. The compliance demonstration sampling results and statistical analysis, including a description of where and how samples of Foundry Sand were collected and the dates that the samples were collected;
  - f. The compliance demonstration documenting that Soil Blend and Bioretention Soil do not exceed 50% Foundry Sand by volume; and
  - g. All laboratory data and statistical evaluations of the total metals and TCLP or SPLP for constituent concentrations listed in Table 1.
10. Not later than April first of each year Barnes Nursery shall submit to Ohio EPA an annual report that includes at a minimum the following information for the previous calendar year:
- a. The volume of Foundry Sand, Soil Blend, and Bioretention Soil used, for each type of use under this permit; and
  - b. The volume of Foundry Sand, Soil Blend, and Bioretention Soil stored for use under this permit.
  - c. The compliance demonstration sampling results and statistical analysis, including a description of where and how samples of Foundry Sand were collected and the dates that the samples were collected.

11. The annual report that complies with Condition D.8. of this permit shall be sent to one of the following addresses:

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

Or

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

#### **General Operating Conditions**

12. Barnes Nursery shall store, blend, and use Foundry Sand, Soil Blend, and Bioretention Soil under this permit in such a manner that the activities will neither cause a nuisance nor adversely affect public health, safety, or the environment.
13. Barnes Nursery 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.
14. Barnes Nursery shall conduct all activities in compliance with all other applicable local, state, and federal laws and regulations not explicitly identified in the permit.
15. 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 Barnes Nursery from responsibility under ORC Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.
16. Barnes Nursery shall not cause pollution or cause any Foundry Sand, Soil Blend, or Bioretention Soil 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. Barnes Nursery shall report any unauthorized discharge to waters of the state to Ohio EPA (call 1-800-282-9378) within twenty-four (24) 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.
18. Barnes Nursery 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 or determining compliance with this permit.
19. Barnes Nursery 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). If there is a conflict between a requirement in a rule and a condition of this permit that cannot be reconciled, Barnes Nursery shall notify the Director in writing of the conflict and shall comply with the permit condition unless directed otherwise by the Director.
20. Pursuant to OAC Rule 3745-599-320(B), this permit is not transferable.

#### **E. Property Access**

Barnes Nursery 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 Barnes Nursery under OAC Chapter 3745-599 or the terms and conditions of this permit;
2. Have access to and copy any records that must be kept under OAC Chapter 3745-599 or the terms and conditions of this permit; and
3. Collect samples, 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.

**F. Revocation**

The Director may revoke this permit upon determining that any of the Eligibility and Criteria for Issuance of this permit are no longer satisfied, that Barnes Nursery has failed to comply with this permit or OAC Chapter 3745-599, or as otherwise provided in accordance with OAC Rule 3745-599-370.

The Director may revoke this permit if the Director determines that a nuisance condition or an adverse impact to public health, safety, or the environment exists. Immediately upon the effective date of the revocation of this permit, Barnes Nursery shall cease use under this permit. The Director may require Barnes Nursery to remove the Foundry Sand, Soil Blend, and Bioretention Soil stored or used at the Site, remediate the Site, or to take other action as appropriate to eliminate the nuisance or adverse impact.

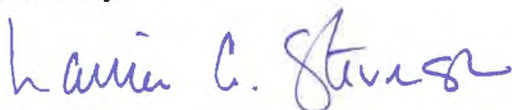
**Right to Appeal**

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, 4<sup>th</sup> Floor  
Columbus, Ohio 43215

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/MU