



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

JULY 30, 2019

Robert Osborne
Ohio Valley Electric Corporation
P.O. Box 468
Piketon, Ohio 45661

Re: Ohio Valley Electric Corporation
Permit – Short Term
Approval Exemption
Beneficial Use
Gallia County
BENU023088

Ohio EPA JUL 30 19
Entered Directors Journal

**Subject: Ohio Valley Electric Corporation-Kyger Creek Station
LAMP Permit Approval and Incorporated Exemption
Land Application of FGD Gypsum**

Effective Date: JULY 30, 2019

Expiration Date: JULY 30, 2024

Dear Mr. Osborne:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the land application management plan permit (LAMP permit) application submitted by Ohio Valley Electric Corporation (OVEC). This LAMP permit and exemption, issued pursuant to Chapters 3734 and 6111 of the Ohio Revised Code (ORC), authorizes the beneficial use of flue gas desulfurization (FGD) gypsum generated by OVEC Kyger Creek Station, in Cheshire, Ohio by placement of the FGD gypsum on agricultural fields for agronomic benefit as a calcium and sulfate rich soil amendment that provides nutrients and helps to stabilize soil structure.

The FGD gypsum consists of calcium sulfate dehydrate from flue gas desulfurization and is considered a solid waste and its placement on land would require OVEC to obtain a permit and license under ORC Chapter 3734. The Director has determined that granting an exemption from the applicable solid waste provisions of ORC Chapter 3734 to beneficially use FGD gypsum in the quantities and under the circumstances specifically authorized in this LAMP Permit is unlikely to adversely affect public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), OVEC is hereby exempted from the applicable solid waste licensing and permitting provisions of ORC Chapter 3734 only for FGD gypsum that is managed as authorized in this LAMP permit subject to compliance with this Permit.

CONDITIONS

1. Only FGD gypsum that is generated by OVEC's Kyger Creek Station in Cheshire, Ohio and that is not a hazardous waste as defined by ORC Section 3734.01, Ohio Administrative Code (OAC) Rule 3745-50-10(A), and OAC Rule 3745-51-03, is eligible for beneficial use under this LAMP Permit. All other FGD gypsum must be separately approved for beneficial use by Ohio EPA.
2. This LAMP permit authorizes OVEC to beneficially use the FGD gypsum managed in accordance with this LAMP Permit and the application as attached and incorporated herein. This LAMP Permit authorizes the beneficial use of only the FGD gypsum generated by Kyger Creek Station on agricultural fields for agronomic benefit. All other beneficial uses of the FGD gypsum must be separately approved by the Director of Ohio EPA.
3. No person shall beneficially use FGD gypsum pursuant to this LAMP Permit at a rate that exceeds five tons of FGD gypsum per acre per year for each beneficial use site.
4. OVEC shall provide a copy of this LAMP Permit to the recipient of any FGD gypsum intended for beneficial use.
5. FGD gypsum shall be beneficially used pursuant to this LAMP Permit only in accordance with the conditions of this LAMP Permit. Approval of this LAMP Permit does not constitute assurance that beneficial use of FGD gypsum in accordance with the approved LAMP Permit will be in compliance with all Ohio laws and regulations.
6. OVEC is responsible for identifying and obtaining any additional authorizations necessary to beneficially use FGD gypsum as described in this LAMP Permit. Except for the applicable solid waste provisions of ORC Chapter 3734 and rules adopted thereunder exempted by this LAMP Permit, issuance of this LAMP Permit to OVEC neither relieves OVEC of the duty to comply with nor authorizes OVEC to conduct activities in violation of any applicable federal, state, or local laws, ordinances, or regulations.

Sampling and Analysis of the Material

7. OVEC shall collect and analyze at least one composite sample per year of FGD gypsum intended for beneficial use. If there is a material change, as that term is defined in OAC Rule 3745-599-02(M)(2), in the FGD gypsum OVEC shall determine constituent concentrations for each constituent listed in Table 1 using all of the following:
 - a. The FGD gypsum samples collected shall be representative of the FGD gypsum intended to be beneficially used;

- b. The material shall be representatively sampled using methods and procedures as defined in U.S. EPA SW-846¹ and shall be analyzed for each constituent specified in Table 1;
- c. Each sample shall be analyzed for leaching potential using the Toxicity Characteristic Leaching Procedure (TCLP) Method 1311 or the Synthetic Precipitation Leaching Procedure (SPLP) Method 1312 as described in U.S. EPA SW-846, for each constituent specified in Table 1; and
- d. The reported detection limit for the sample analysis shall be less than the concentration limit specified for each constituent listed in Table 1.

Table 1: Constituent Concentration Limits

Constituents²	Leaching Analysis Concentration Limit (mg/L)
Arsenic	0.2
Barium	40
Beryllium	0.08
Boron	140
Cadmium	0.1
Chromium, total	2.0
Copper	26
Lead	0.3
Mercury	0.04
Molybdenum	4.0
Nickel	14
Selenium	0.2
Thallium	0.04
Zinc	200

- 8. OVEC shall not make available or distribute for beneficial use any FGD gypsum that contains constituent concentrations at levels that exceed any constituent concentration specified in Table 1 of this LAMP Permit.

¹ EPA publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846)," as amended through July 2016.

² TCLP or SPLP Analysis limits are 20 times the drinking water standard (Maximum Containment Levels (MCLs) or Secondary MCLs) for As, Ba, Be, B, Cd, Cr, Cu, Pb, Hg, Mo, Ni, and Ti; Se is 5 times the MCL.

Best Management Practices for Storage and Beneficial Use of the FGD Gypsum

9. A copy of this LAMP Permit shall be given to all distributors and end users that store or beneficially use the FGD gypsum as a soil amendment, and OVEC shall obtain a written agreement or receipt from the distributors and end users, agreeing to follow Best Management Practices (BMPs) including, at a minimum, all of the following:
 - a. Storing FGD gypsum at the beneficial use site for not more than 90 days prior to beneficial use;
 - b. Minimizing the exposure of FGD gypsum to rain, snow, snowmelt, and runoff throughout the storage, processing, and staging of the material (including loading and unloading, disposal, cleaning, and maintenance operations);
 - c. The use of grading, berming, or curbing to prevent FGD gypsum runoff and divert run-on away from storage areas;
 - d. Providing and maintaining a 50-foot undisturbed natural buffer around surface waters of the state, directing storm water to vegetated areas to increase sediment removal and maximize storm water infiltration.
 - e. Locating all FGD gypsum storage areas at least 300 feet from occupied buildings;
 - f. Locating all FGD gypsum storage areas at least 300 feet from wells and surface waters used for drinking water or watering livestock and at least 100 feet from other surface waters of the state as defined in ORC Section 6111.01(H);
 - g. Unless otherwise provided in a permit issued under ORC Chapter 6111, creating surface diversions to catch any solids in runoff or to divert runoff away from waters of the state or adjacent properties at each site where FGD gypsum is stored on land; and
 - h. Not storing FGD gypsum in areas that are either over or within a sensitive groundwater area, including any of the following:
 - 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 clay rich glacial till between the bottom of the fill material and the aquifer used by the applicable public water supply well as a source of ground water;
 - v. An aquifer designated on an Ohio Department of Natural Resources Ground Water Resources map for the county in which the storage 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 aquifer.

10. OVEC shall analyze the FGD gypsum for the constituents documented in the LAMP Permit Application so that users may determine the appropriate maximum agronomic application rate. When calculating the appropriate application rate, end users shall perform all of the following:
 - a. Consult Ohio State University Bulletin 945, Gypsum as an Agricultural Amendment: General Use Guidelines (or subsequent updated versions);
 - b. Base the application rate on the ideal fertilizer range for the crop to be grown and the existing nutrient status of the soil at the beneficial use site (as determined by the most recent sampling results of the FGD gypsum and the soil);
 - c. Consider the potential for runoff of the FGD gypsum, either by itself or carried in storm water.

11. OVEC shall give notice to all recipients of the FGD that the following BMPs, at a minimum, shall be used when beneficially using FGD gypsum as a soil amendment pursuant to this LAMP permit:
 - a. FGD gypsum shall not be land applied within 300 feet of occupied buildings, unless a reduction in this distance for land application of FGD gypsum is approved, in writing, by the owner and, if applicable, the resident of the occupied building;
 - b. FGD gypsum shall not be land applied within 300 feet of wells and surface waters used for drinking water or watering livestock or within 100 feet with a 100-foot grass buffer;
 - c. FGD gypsum shall not be land applied within 33 feet of surface waters of the state as defined in ORC Section 6111.01(H) that are not referenced in Condition 11.b;
 - d. FGD gypsum shall not be land applied during precipitation events;
 - e. FGD gypsum shall not be land applied to saturated soil; and
 - f. FGD gypsum shall not be land applied on frozen or snow-covered ground.

Record Keeping and Reporting

12. The following records shall be maintained by OVEC for a minimum of 5 years after the beneficial use of FGD gypsum pursuant to this LAMP Permit, and shall be made available to Ohio EPA upon request:
 - a. Records of the annual volume of FGD gypsum that is beneficially used pursuant to this LAMP Permit;

- b. Records identifying the direct recipients and the volumes of FGD gypsum received by each recipient each year.
 - c. The sampling plan detailing where and how samples of FGD gypsum were collected, as well as dates that the annual samples were collected;
 - d. The laboratory reports of all sampling results and analyses of FGD gypsum; and
 - e. Documentation that demonstrates the FGD gypsum is not a hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.
13. Not later than April 1 of each year, OVEC shall submit an annual report that contains the FGD gypsum characterization and the beneficial use activities involving FGD gypsum for the previous calendar year. At a minimum, the annual report shall include the volume of FGD gypsum used for each beneficial use.
14. In each annual report, OVEC shall include the following certification statement. The certification statement shall be printed out, signed in accordance with Condition number 15:
- "I certify, under penalty of law, that the information contained in this annual report that will be used to determine compliance with the requirements contained in Chapters 3734 and 6111 of the ORC, and all rules thereunder, for the period beginning (insert date of last certification statement) and ending (insert current certification statement date) was prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."*
- For the first certification statement, insert the initial effective date of this LAMP Permit as the beginning date for the certified period of time.
15. The certification statement shall be signed by one of the following persons: In the case of a corporation, by a principal executive officer of at least the level of vice president or the principal executive officer's duly authorized representative, if such representative is responsible for the overall operation of the facility. In the case of a partnership, a general partner. In the case of a sole proprietorship, the proprietor. The signature shall constitute personal affirmation that all statements or assertions of fact in the records are true and complete and comply fully with applicable state requirements and shall subject the signatory to liability under ORC Section 2921.13.
16. OVEC shall submit the annual report that complies with Conditions 13, 14, and 15 of this LAMP Permit to the following address:

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

17. OVEC shall store and beneficially use FGD gypsum only in a manner that neither creates a nuisance nor adversely affects public health or safety or the environment. The Director may revoke this LAMP 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 LAMP Permit, OVEC shall cease distribution and beneficial use under this LAMP Permit. The Director may require OVEC to remove the material, remediate the site, or to take other action as appropriate to eliminate the nuisance or threat.
18. OVEC 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.
19. OVEC shall conduct all activities in compliance with all other applicable local, state, and federal laws and regulations not explicitly identified in this LAMP Permit.
20. FGD gypsum is considered a solid waste and would require OVEC to obtain a 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 FGD gypsum in the quantities and under the circumstances specifically authorized in this LAMP permit is unlikely to adversely affect public health or safety or the environment. Therefore, pursuant to ORC Section 3734.02(G), the Permittee is hereby exempted from the applicable solid waste provisions of ORC Chapter 3734 and the rules adopted thereunder when FGD gypsum is stored or placed on the land for beneficial use as authorized in this LAMP Permit subject to compliance with all conditions in this LAMP permit.
21. This LAMP Permit shall not be interpreted to release OVEC from responsibility under ORC Chapters 3704, 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.

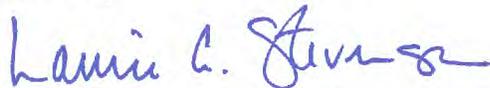
22. OVEC shall not cause pollution or place or cause to be placed any FGD gypsum where it causes pollution to any waters of the state, except in accordance with an effective National Pollutant Discharge Elimination System (NPDES) permit. OVEC shall report any unauthorized discharge to waters of the state to Ohio EPA within twenty-four hours of discovery.
23. OVEC shall provide written notice to Ohio EPA within seven days of discovering noncompliance with this LAMP Permit.
24. The Director may add, delete, or change any conditions of this LAMP Permit to protect human health or safety or the environment.
25. OVEC may submit written requests for modifications to requirements in this LAMP Permit to Ohio EPA. The request must explain the need for the modification and include any applicable supporting documentation. OVEC may implement a modification only after receiving written concurrence from Ohio EPA.
26. OVEC 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 LAMP Permit.
27. This LAMP Permit and the authorization to beneficially use FGD gypsum shall expire at midnight on the expiration date shown above. In order to receive authorization to beneficially use FGD gypsum beyond the expiration date, OVEC shall submit such information and forms as are required by Ohio EPA not later than 180 days prior to the expiration date.
28. OVEC shall allow the Director or an authorized representative of Ohio EPA to enter upon the property where OVEC stores, conducts other activities under this LAMP Permit, or retains records under the terms and conditions of this LAMP Permit, for any of the following purposes:
 - a. To inspect and copy records that must be kept under the terms and conditions of this LAMP Permit.
 - b. To 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 this LAMP Permit.
 - c. For all other purposes for which the Director or an authorized representative of Ohio EPA has rights of access or inspection authority under applicable law.

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

If you have any questions concerning this authorization, please contact Maera Flynn of Ohio EPA, Division of Materials and Waste Management, at (614) 644-2621.

Sincerely,

A handwritten signature in blue ink that reads "Laurie A. Stevenson". The signature is fluid and cursive.

Laurie A. Stevenson
Director

LS/MF

Attachment: LAMP permit application