



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

November 13, 2020

Jeff Hunyor
Systech Environmental Corporation
P.O. Box 266
Paulding, Ohio 45879

**Re: Systech
Permit – Short Term
Approval
Beneficial Use
Paulding County
BENU021148**

**Subject: Systech Environmental Corporation
Land Application Management Plan
Cement Kiln Dust**

Effective Date: November 13, 2020

Expiration Date: November 13, 2025

Dear Mr. Hunyor:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the land application management plan (LAMP) permit application submitted by Systech Environmental Corporation (Systech). This LAMP permit and exemption (LAMP Permit), issued pursuant to Ohio Revised Code (ORC) Chapters 3734 and 6111, is for the use of cement kiln dust (CKD) generated from the cement making process at Systech in Paulding, Ohio, by placement on the land for agronomic benefit. Additionally, the LAMP Permit authorizes Systech to place CKD mined from the Lafarge North American, Inc. residual waste landfill on the land for agronomic benefit as an agricultural soil amendment.

The Director of Ohio EPA (Director) has determined that issuing this LAMP Permit to land apply CKD in the quantities and under the circumstances authorized in this LAMP Permit is unlikely to adversely affect public health or safety or the environment.

This LAMP Permit is issued pursuant to ORC Chapters 3734 and 6111 for the use of CKD by placement on the land for agronomic benefit. Pursuant to the authority of the Director under ORC Chapters 3734 and 6111, this LAMP Permit for Systech is approved subject to compliance with all conditions below.

Further, the Director has determined that granting an exemption from the applicable solid waste provisions of ORC Chapter 3734 to use CKD 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 Director hereby exempts Systech from the applicable solid waste provisions of ORC Chapter 3734 and rules adopted thereunder specific to the land application of CKD as authorized in this permit except as specifically stated in Condition 26.

CONDITIONS

1. As used in the LAMP Permit:
 - a. "Agronomic benefit" means the promotion or enhancement of plant growth and includes but is not limited to increases in soil fertility and moisture retention.
 - b. "Waters of the state" has the same meaning as in section 6111.01(H) of the Revised Code.
2. This LAMP Permit authorizes the land application of CKD generated by Systech, managed in accordance with this LAMP Permit. CKD will be placed on the land for agronomic benefit. This authorization shall not be construed to authorize any other use of CKD.
3. Only CKD that is not a hazardous waste as defined by ORC Chapter 3734, Ohio Administrative Code (OAC) Rule 3745-50-10(A), and OAC Rule 3745-51-03, are eligible for land application under this LAMP Permit. All other CKD land applications must be separately approved for use by Ohio EPA. Generator knowledge and totals analysis submitted to Ohio EPA by Systech on May 11, 2020, demonstrated the CKD is not a hazardous waste.
4. Ohio EPA's jurisdiction is limited to determining whether land applying the material is unlikely to harm public health, safety, or the environment.
5. The CKD shall be stored and land applied in accordance with the conditions of this LAMP Permit. Approval of this LAMP Permit does not constitute an assurance that use of CKD in accordance with the approved LAMP Permit will be in compliance with all Ohio laws and regulations.
6. Systech is responsible for identifying and obtaining any additional authorizations necessary to land apply CKD 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 Systech neither relieves Systech of the duty to comply with nor authorizes Systech to conduct activities in violation of any applicable federal, state, or local laws, ordinances, or regulations. All activities shall be accomplished in compliance with all federal, state, or local 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 ground water and surface water.

7. Systech shall ensure that CKD intended for land application under this LAMP Permit is analyzed at a minimum annually in accordance with this LAMP Permit. When collecting and analyzing samples pursuant to this LAMP Permit, Systech shall ensure the following requirements are satisfied:
 - a. The samples collected shall be representative of CKD intended for land application under this LAMP Permit;
 - b. The sample(s) are analyzed for the constituents listed in Table 1 of this LAMP Permit and constituents added pursuant to Condition Number 8, using the following methods:
 - i. Each sample shall be analyzed for total metals, as described in U.S. EPA SW-846, for the constituents listed in Table 1; and
 - ii. 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.
 - c. The reported detection limit for the analysis shall be below the limit specified for each constituent in Table 1 or set for constituents added pursuant to Condition Number 8; and
 - d. The analytical methods employed for constituents added pursuant to Condition Number 8 shall be the same analytical methods as stated in Condition Number 7b and the units of the limits set in accordance with Condition Number 8.
8. Ohio EPA reserves the right to add constituents to Table 1 and set limits for those newly added constituents as it deems necessary to protect public health, safety, or the environment, without modifying this LAMP Permit, by providing 30-days written notice to Systech.

Table 1: Maximum Allowable Constituent Concentrations

Constituents	Maximum Concentration (Totals mg/kg)¹	TCLP Method 1311 (mg/L)²
Aluminum	77000	4
Antimony	31	0.12
Barium	15000	40
Boron & Borates	16000	7.3
Cadmium	70	0.1
Chromium	100 ³	2
Cobalt	23	0.73
Copper	270 ⁴	20
Iron	55000	6
Lead	400	0.3
Manganese	1800	1
Mercury	10	0.04
Molybdenum	390	2
Nickel	130 ⁴	0.2
Selenium	390	0.2
Thallium	5.2	0.04
Zinc	2200 ⁴	100

9. Systech shall not make available or distribute for land application any CKD that contains constituents at levels that exceed any of the constituent concentration limits specified in Table 1 or any constituent concentration limit for any additional constituent that Ohio EPA has identified to Systech as requiring testing. Analysis submitted to Ohio EPA by Systech on May 11, 2020 demonstrated no constituents in the sample analyzed exceeded the Table 1 limits.
10. For the continuously generated CKD: Systech shall collect and analyze at least six grab samples per year of CKD intended for land application. Samples shall be collected using a strategy to obtain representative samples as defined in U.S. EPA SW-846 Chapter Nine.
 - a. Systech shall have the sample(s) analyzed for the constituents listed in Table 1 using methods specified in Condition Number 7b of this permit.
 - b. The reported analytical detection limit for each constituent shall be below the limit specified in Table 1.

¹ US EPA Regional Screening Levels, Residential Soil

² TCLP Analysis Limits are 20 times drinking water standards (MCLs or SMCLs)

³ US EPA 40 CFR 261.24 (100 = 5mg/L x 20). If the totals analysis for chromium exceeds 100gm/Kg, the TCLP analysis must be below 2 mg/L for the CKD.

⁴ Cu, Ni, and Zn: Phytotoxic levels are the required limits for applying CKD to agricultural land

- c. Systech shall use analytical methods and procedures as specified in the U.S. EPA's "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (U.S. EPA SW-846).
11. For the mined CKD:
- a. **Initial Sampling:** A total of five composite samples shall be taken from the first 500 tons of mined CKD processed for land application. Three grab samples shall be collected from the working face of an excavation area or from the stockpile at the upper, middle, and lower vertical elevations and composited into one sample. Samples shall be collected using a strategy to obtain representative samples as defined in U.S. EPA SW-846 Chapter Nine. All five composite samples shall be analyzed using methods specified in Condition Number 7b for the constituents listed Table 1.
 - b. **Subsequent Sampling:** A total of five composite samples shall be taken from each subsequent 2000 tons of mined CKD processed for land application. Three grab samples shall be collected from the working face of an excavation area or from the stockpile at the upper, middle, and lower vertical elevations and composited into one sample. Samples shall be collected using a strategy to obtain representative samples as defined in U.S. EPA SW-846 Chapter Nine. All five composite samples shall be analyzed using methods specified in Condition Number 7b for the constituents listed in Table 1.
 - c. **Contingency Sampling:** If analytical data from subsequent sampling exceeds any maximum constituent concentration listed in Table 1, Systech shall cease distribution and land application of the mined CKD and shall perform additional contingency sampling and analysis. Contingency sampling shall be identical to the initial sampling specified in Condition 11a. Samples shall be collected using a strategy to obtain representative samples as defined in U.S. EPA SW 846 Chapter Nine.

STORAGE CONDITIONS

12. Systech shall use Best Management Practices when storing CKD. The Best Management Practices shall include, at a minimum, all the following:
- a. Minimizing the exposure of CKD to rain, snow, snowmelt, and runoff throughout the storage, processing, and staging of the CKD (including loading and unloading, cleaning, and maintenance operations);
 - b. The use of grading, berming, or curbing to prevent CKD runoff and divert run-on away from storage areas;

- c. 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;
 - d. Locating all CKD storage areas at least 300 feet from occupied buildings unless a reduction in this distance is approved, in writing, by the landowner and, if applicable, the resident of the occupied building;
 - e. Locating all CKD 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);
 - f. Unless otherwise provided in a permit issued under ORC Chapter 6111, create surface water diversions to catch any solids in runoff and to divert runoff away from waters of the state at each site where CKD is stored on land;
 - g. Taking measures to control fugitive dust and other air emissions that may result from activities authorized through this LAMP Permit;
 - h. Not storing CKD 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 clayey glacial till between the bottom of the fill material and the ground water;
 - v. 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.
13. Systech shall store CKD used for land application in the area specified on the attached site map.
14. Systech shall not store more CKD than the volume reported in its most recent annual report pursuant to Condition 21.a of this LAMP Permit.

15. Except for storage as authorized by Condition 12f, Systech shall obtain a permit to install and any other applicable authorization from Ohio EPA Division of Surface Water prior to dewatering or storing CKD.

LAND APPLICATION CONDITIONS

16. Systech shall not place CKD 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.
17. Systech shall not land apply more than 10 tons of CKD per acre per year.
18. Systech shall use Best Management Practices when applying CKD on the ground for agronomic benefit pursuant to this LAMP Permit including, at a minimum, all of the following:
 - a. CKD shall not be land applied within 300 feet of an occupied building, unless a reduction in this distance for land application of CKD is approved, in writing, by the land owner and, if applicable, the resident of the occupied building;
 - b. CKD shall not be land applied within 300 feet of wells and surface waters used for drinking water or watering livestock or within 100 feet of wells and surface waters used for drinking water or watering livestock if there is a 100-foot grass buffer between the land application area and wells and surface waters used for drinking water or watering livestock;
 - c. CKD shall not be land applied within 33 feet of surface waters of the state that are not referenced in Condition D.18.b;
 - d. CKD shall not be land applied during precipitation;
 - e. CKD shall not be land applied to saturated soil;
 - f. CKD shall not be applied onto frozen or snow-covered ground; and
 - g. Measures shall be taken to control fugitive dust and other air emissions that may result from activities authorized through this LAMP Permit.
19. When land applying CKD pursuant to this LAMP Permit, Systech shall use application methods that ensure even distribution of the CKD.

RECORD KEEPING AND REPORTING

20. The following records shall be maintained by Systech for a minimum of five years after the land application of CKD pursuant to this LAMP Permit, and shall be made available to Ohio EPA upon request:
 - a. Records of the annual volume of CKD generated for land application and the volume of CKD land applied annually.
 - b. Records of the recipient(s) and the location(s) where CKD was stored or placed on the land and the volume provided by CKD to each recipient;
 - c. All laboratory reports of all sampling results and analyses;
 - d. Documentation demonstrating that the CKD is not a hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.
21. Not later than April 1st of each year Systech shall submit to Ohio EPA an annual report. Systech shall send the annual report to the address listed in Condition 21 of this LAMP Permit, and shall include the following information for the previous calendar year:
 - a. Volume of CKD land applied under this LAMP Permit;
 - b. Volume of CKD stored for land application under this LAMP Permit as of the date of the annual report; and
 - c. Results of sampling analyses of CKD land applied under this LAMP Permit.
22. Unless otherwise directed by Ohio EPA in writing, Systech shall submit the annual report via the Division of Materials of Waste Management's virtual dropbox: https://fileshare.epa.ohio.gov/filedrop/co_dmwm_submittals.

GENERAL OPERATING CONDITIONS

23. Systech shall store and land apply CKD 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, Systech shall cease land application under this LAMP Permit. The Director may require Systech to remove the material, remediate the site, or to take other action as appropriate to eliminate the nuisance or threat.

24. Systech shall conduct all activities in compliance with all federal, state, or local laws, ordinances, or 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.
25. CKD is a solid waste and would require Systech to obtain a permit and license under ORC Chapter 3734 and the rules promulgated thereunder for disposal. The Director has determined that granting an exemption from the applicable solid waste provisions of ORC Chapter 3734 to use CKD 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), Systech is hereby exempted from the applicable solid waste provisions of ORC Chapter 3734 and the rules adopted thereunder except as specifically stated in Condition 18, when the CKD is stored or placed on the land for land application as authorized in this LAMP Permit subject to compliance with all conditions in this LAMP Permit.
26. Pursuant to ORC Section 3734.02(G) and OAC Rule 3745-27-03(B), Systech is hereby exempt from the requirement to collect and remit the state solid waste disposal fee levied under ORC Section 3734.57(A) for use of the CKD in accordance with this LAMP Permit. Systech shall collect and remit all applicable solid waste management district disposal and generation fees levied under ORC Sections 3734.57(B) and 3734.573 and any host community fee levied under ORC Section 3734.57(C).
27. Nothing in this LAMP 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 LAMP Permit shall not be interpreted to release Systech 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.
28. Systech shall not cause pollution or place or cause to be placed any CKD where it causes pollution to any waters of the state, except in accordance with an effective National Pollutant Discharge Elimination System permit. Any unauthorized discharge to waters of the state shall be reported to Ohio EPA within 24 hours of discovery.
29. Systech shall provide written notice to the Director within seven days of discovering noncompliance with this LAMP Permit.
30. The Director may add, delete, or change any conditions of this LAMP Permit to protect human health or safety or the environment.

31. Systech 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.
32. This LAMP Permit and the authorization to land apply CKD shall expire at midnight on the expiration date shown above. In order to receive authorization to land apply CKD beyond the above date of expiration, Systech shall submit such information and forms as are required by Ohio EPA not later than 180 days prior to the above date of expiration.
33. Systech shall allow the Director or an authorized representative of Ohio EPA to enter upon the property where Systech stores or has placed CKD, conducts other activities under this LAMP Permit, or retains records under the terms and conditions of this LAMP Permit, for 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

Questions concerning this LAMP Permit should be directed to Ohio EPA's Beneficial Use Unit at (614) 644-2621.

Sincerely,

A handwritten signature in blue ink that reads "Laurie A. Stevenson". The signature is written in a cursive style with a large initial "L".

Laurie A. Stevenson
Director

LS/MU

