



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

AUGUST 16, 2019

Francis Ploetz
Limecorp, LTD
3095 Homeward Way
Fairfield, Ohio 45014

Re: Limecorp Co
Permit – Short Term
Approval
Beneficial Use
Shelby County
BENU023172

**Subject: Limecorp, LTD
Individual Beneficial Use Permit
Drinking Water Treatment Materials, City of Sidney Water Treatment Plant**

Effective Date: **AUGUST 16, 2019**

Expiration Date: **AUGUST 16, 2024**

Ohio EPA AUG 16 '19
Entered Directors Journal

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed Limecorp, LTD's (Limecorp) application to beneficially use drinking water treatment material (DWTM) from the City of Sidney's water treatment plant (Sidney WTP) located at 880 E. Court Street, Sidney, Ohio. Pursuant to the authority of the Director under Ohio Revised Code (ORC) Chapters 3734 and 6111 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 in this Permit and the Permit application. Beneficial use of Sidney WTP's DWTM 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.

DWTM authorized for beneficial use under this Permit consists mainly of lime and sediment and may also contain aluminum sulfate, ferric sulfate, and poly-aluminum chloride, which are coagulants often used by public water systems to aid in removal of particulate and dissolved constituents from raw intake water. Lime is used to soften and coagulate raw intake water, and, due to its neutralizing potential, DWTM may be placed on the land for agronomic benefit as a liming material.

This Permit authorizes the beneficial use of Drinking Water Treatment Material, as that term is defined in Section A of this Permit, and authorizes only the beneficial use methods specifically identified in Section B.2. of this Permit. All other beneficial uses and beneficial use of any other DWTM must be separately approved by the Director.

This Permit shall expire at midnight on the expiration date listed above. Limecorp 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 Limecorp 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 property upon which the DWTM is placed, from the obligation to comply with all applicable laws governing the placement.

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:

"Agronomic benefit" means the promotion or enhancement of plant growth and includes but is not limited to increases in soil fertility and moisture retention.

"Cyanobacteria" means photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and fresh water ecosystems, and may produce cyanotoxins that at sufficiently high concentrations can pose a risk to public health.

"Cyanotoxin" means a toxin (such as microcystins) produced by cyanobacteria, which include liver toxins, nerve toxins, and skin toxins.

"Dewatered" means the material has no free liquids as determined by Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846) Test Method 9095B: Paint Filter Liquids Test.

"Drinking Water Treatment Material" means the byproduct resulting from treatment of the Sidney WTP's source water supply that is solid waste, industrial waste or other waste, for drinking or industrial purposes, and including only DWTM from the Sidney WTP's Service Lagoon. Treatment may include addition of aluminum sulfate, ferric sulfate, poly-aluminum chloride and/or lime for coagulation and/or softening.

"Fill" means material 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.

"Frozen ground" means ground that is impenetrable because of frozen soil moisture. Generally, frozen ground shall meet all the following criteria: 1) not easily penetrated by a metal object, 2) not deform to show visible imprint under downward pressure and 3) have a temperature below 32 degrees Fahrenheit.

"Liming material" means all materials, the calcium and magnesium content of which is used to neutralize soil acidity, and includes the oxide, hydrate, carbonate, and silicate forms, or combinations of those forms.

"Microcystins" means total microcystins or the combination of all the variants of the cyanotoxin microcystin, which is produced by a number of cyanobacteria.

"Microcystins detection" means an analytical result that is equal to or greater than the reporting limit for the analytical method specified in OAC Rule 3745-90-04.

"Saturated soil" means all of the pore spaces in the soil are filled with water. A soil that has an available water capacity above field capacity is considered saturated.

"Snow covered ground" means soil or residue lying on the soil cannot be seen because of snow cover, or soil covered by one-half inch or more of ice.

"Structural fill" means material used to create a stable base that meets the applicable engineering specifications for and is used as engineered fill, mechanically stabilized earthen walls, or granular fill.

"Waters of the state" has the same meaning as in section 6111.01(H) of the Revised Code.

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

1. Only DWTM from Sidney WTP's Service Lagoon as defined in Section A of this Permit is eligible for beneficial use under this Permit.
2. This Permit authorizes the beneficial use of eligible DWTM under this Permit by placement on land for agronomic benefit as a liming material.
3. Limecorp shall comply with all applicable requirements of ORC Section 905.52, pertaining to licensing a liming material through the Ohio Department of Agriculture (ODA).
4. The sampling and analysis data submitted by Limecorp to Ohio EPA demonstrates that the eligible DWTM 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;
 - b. Does not contain constituents that exceed any of the constituent concentrations in Table 1; and
 - c. Does not contain microcystins at a concentration exceeding 130 ug/L (ug/g).

Table 1: Constituent Concentration Limits

Constituent ¹²	Totals Analysis (mg/kg) ^{*3}
Aluminum (Al)	77000
Arsenic (As)	41
Barium (Ba)	15000
Cadmium (Cd)	39
Copper (Cu)	1500
Lead (Pb)	300
Manganese (Mn)	1800
Nickel (Ni)	420
Selenium (Se)	100
Zinc (Zn)	2800

* - dry weight basis

5. Ohio EPA has determined that a complete application was submitted and that the beneficial use of DWTM 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).
6. For the purposes of this Permit, eligible DWTM as defined in Section A of this Permit, when beneficially used in accordance with this Permit and OAC Chapter 3745-599, is a beneficial use byproduct as defined in OAC Rule 3745-599-02(B)(2).

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

² As, Cd, Cu, Pb, Ni, 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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7. Limecorp 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 authorized in this Permit.

C. Notice of Necessary Information for Distribution

1. Limecorp shall provide all owners of property upon which Limecorp beneficially uses DWTM with:
 - a. A statement that the beneficial use byproduct being distributed meets the criteria in Section B of this Permit;
 - b. A copy of this Permit; and
 - c. Upon request by a person receiving the beneficial use byproduct, a copy of the sampling and analysis data in the permit application.

D. Operating Conditions

1. Limecorp shall beneficially use DWTM by placement on land for agronomic benefit as a liming material and shall conduct all activities authorized by this Permit in accordance with this Permit, the Permit application, and OAC Chapter 3745-599.
2. Limecorp shall not use DWTM as fill or structural fill pursuant to this Permit.
3. Limecorp shall not store DWTM managed under this Permit on the land at any location other than Sidney WTP's Service Lagoon.
4. Limecorp shall cease beneficial use of DWTM pursuant to this Permit if it is determined that the DWTM no longer satisfies the Criteria for Issuance of an Individual Beneficial Use Permit in Section B of this Permit.
5. Limecorp shall collect and analyze at least one representative composite sample per calendar year of the DWTM intended for beneficial use pursuant to this Permit. Prior to beneficial use, Limecorp shall collect and analyze an additional representative composite sample if a "material change", as that term is defined in OAC Rule 3745-599-02(M)(2), in the DWTM is discovered. Limecorp shall representatively sample and analyze the DWTM samples as follows:
 - a. The DWTM samples collected shall be representative of the DWTM intended to be beneficially used pursuant to this Permit;
 - b. Each composite sample of DWTM shall be collected by taking a minimum of two discrete samples of DWTM and compositing the discrete samples into one composite sample for analysis.

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- c. Each composite sample shall be analyzed for total metals, as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, for the constituents listed in Table 1 and any additional constituents that Ohio EPA has identified in writing to Limecorp as requiring testing;
 - i. The reported detection limit for the sample analysis shall be less than the limit specified for each constituent in Table 1 and the constituent concentration limit specified for additional constituents where Ohio EPA has identified in writing as requiring testing.
- d. Each composite sample of DWTM shall be analyzed for the Resource Conservation and Recovery Act heavy metals (RCRA 8 metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) for leaching potential using the Toxicity Characteristic Leaching Procedure (TCLP) Method 1311 as described in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, to demonstrate that the DWTM is not a hazardous waste as defined in ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03.
- e. Each composite sample shall be analyzed for microcystins and analyzed in accordance with all of the following:
 - i. Samples of DWTM from the Sidney WTP's Service Lagoon shall be collected using a strategy to obtain representative samples as described in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods (SW-846);
 - ii. Individual grab samples of the DWTM from Sidney WTP's Service Lagoon may be combined into representative composite samples;
 - iii. Each individual grab sample or, if composite samples are being used, each composite sample shall be analyzed for microcystins by a lab certified by Ohio EPA under OAC Chapter 3745-89 to conduct microcystins analysis; and
 - iv. Microcystins analysis shall be performed utilizing the "Ohio EPA Amenable (Extracellular and Intracellular) Microcystins-ADDA in Sludge" by ELISA Analytical Methodology (Ohio EPA DES 701.3).
- 6. Prior to beneficial use of DWTM pursuant to this Permit, Limecorp shall obtain written consent from the owner of the property where DWTM is to be land applied and provide a copy of the written consent to Ohio EPA upon request.

DWTM Land Application Conditions

7. After the most recent liming application, but not more than twelve months prior to beneficial use, Limecorp shall determine the pH of the soil at the beneficial use site in accordance with Ohio State University Extension "Soil Sampling to Develop Nutrient Recommendations (AGF 513-12)". Limecorp shall not beneficially use DWTM pursuant to this Permit at any site where the soil has a pH equal to or greater than 7.5.
8. Limecorp shall calculate the per acre application rate for each beneficial use site upon which Limecorp intends to beneficially use DWTM pursuant to this Permit. Limecorp shall ensure that the application rate will not result in a total liming rate that exceeds the equivalent of six dry tons of DWTM being applied per acre over a three-year period. When calculating the appropriate application rate, Limecorp shall perform all of the following:
 - a. Consult Ohio State University Extension Nutrient Management Fertility Factsheets, Bulletins and Tools website
<https://agcrops.osu.edu/FertilityResources>;
 - b. Base the application rate on the ideal soil pH range for the crop to be grown, the existing soil pH, and the effective neutralizing power of the DWTM (as determined by the most recent sampling results of the DWTM);
 - c. Consider the potential for runoff of the DWTM, either by itself or carried in storm water; and
 - d. Determine the available water capacity of the soil in accordance with Appendix B of OAC Rule 901:10-2-14 and, for non-dewatered DWTM, ensure that the application rate does not exceed the available water capacity of the soil, or 10,000 gallons per acre per week, whichever is less.
9. Limecorp shall not apply DWTM at a rate greater than the application rate calculated in accordance with Condition D.8.
10. Limecorp shall use Best Management Practices when applying DWTM on the ground for agronomic benefit as a liming material pursuant to this Permit including, at a minimum, all of the following:
 - a. DWTM shall not be land applied within 300 feet of an occupied building, unless a reduction in this distance for land application of DWTM is approved, in writing, by the land owner and, if applicable, the resident of the occupied building;
 - b. DWTM 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;

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- c. DWTM shall not be land applied within 33 feet of surface waters of the state that are not referenced in Condition D.10.b;
 - d. DWTM shall not be land applied during precipitation;
 - e. DWTM shall not be land applied to saturated soil;
 - f. DWTM 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 Permit.
11. When land applying DWTM pursuant to this Permit, Limecorp shall use application methods that ensure even distribution of the DWTM. Limecorp shall not apply DWTM by means of injection of DWTM.
12. In addition to complying with the Best Management Practices in Conditions D.10 and D.11 of this Permit, if the microcystins concentration in the DWTM analyzed in accordance Condition D.5 of this Permit exceeds 20 µg/L, then when land applying DWTM Limecorp:
- a. Shall till the DWTM into the soil to a minimum depth of six (6) inches on the beneficial use site, within six (6) hours of the land application;
 - b. Shall not land apply DWTM when there is at least a fifty percent chance of at least a quarter inch of rain within twenty-four hours of land application; and
 - c. Shall not land apply DWTM under this Permit to subsurface drained fields if the drains are flowing, unless there is an on-site means of stopping the discharge from subsurface drains to waters of the state. Limecorp shall ensure that all tile outlets from the beneficial use site are plugged and all tile stops are closed prior to or at the same time as land application of DWTM and that the outlets and stops remain plugged/closed until there is no discharge from the tile stops or tile outlets.

Record Keeping and Reporting

13. Limecorp shall retain the following information for a minimum of five years after beneficial use of the DWTM and shall make the information available to Ohio EPA upon request:
- a. Records of the annual volume of DWTM accepted for beneficial use from Sidney WTP's Service Lagoon and the volume of DWTM actually beneficially used annually;
 - b. Documentation demonstrating that the DWTM is not a hazardous waste as defined by ORC Section 3734.01, OAC Rule 3745-50-10(A), and OAC Rule 3745-51-03;

- c. Records of each location where the DWTM is placed on land;
 - d. A sampling and analysis plan detailing where and how samples of DWTM from Sidney WTP's Service Lagoon were collected, dates that the samples were collected, and the list of constituents from Table 1 for which samples were analyzed;
 - e. All laboratory data and analyses of the pH and constituent concentrations listed in Table 1 and the total microcystins analysis, if required, in the DWTM;
 - f. Records of precipitation on days DWTM was land applied;
 - g. Records of the application rate calculations and results of soil pH for each beneficial use site; and
 - h. Copies of liming material licenses required by ORC Section 905.52.
14. Limecorp shall retain for a minimum of five years and make available to Ohio EPA upon request records of the applications of DWTM in which the microcystins concentration exceeds 20 µg/L, including all of the following:
- a. The location of each beneficial use site upon which the DWTM was placed, identified by either street address or latitude and longitude;
 - b. The location of each field that contains subsurface tile drainage, for each beneficial use site where DWTM was land applied;
 - c. For each beneficial use site, the number of acres upon which the DWTM was land applied;
 - d. Actual precipitation forecast data consulted for compliance with Condition D.10.d and Condition D.12.b of this Permit;
 - e. The date the DWTM was land applied on each beneficial use site;
 - f. The date of each application of DWTM for each beneficial use site, together with the volume of DWTM (in wet tons or in dry tons) that was land applied on that date;
 - g. The method or equipment used to ensure that the DWTM was mixed with soil to a minimum depth of six inches on the beneficial use site; and
 - h. The Best Management Practices used on each beneficial use site to satisfy Conditions D.10-12 in this Permit.
15. Not later than April first of each year Limecorp shall submit to the Director an annual report that includes the volume of DWTM beneficially used pursuant to this Permit for the previous calendar year. The annual report shall be sent to one of the following addresses:

For mailings, use the post office box number:

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

or

For deliveries to the building:

Ohio Environmental Protection Agency
Lazarus Government Center
Division of Materials and Waste Management
Attn: Beneficial Use Unit
50 West Town Street
Columbus, Ohio 43215

General Operating Conditions

16. Issuance of this Permit does not constitute assurance that the beneficial use of DWTM by placement on land for agronomic benefit as a liming material in accordance with this Permit will comply with all Ohio laws and regulations.
17. Limecorp shall beneficially use DWTM pursuant to 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, Limecorp shall cease beneficial use under this Permit. The Director may require Limecorp to remove the DWTM, remediate the beneficial use site, or to take other action as appropriate to eliminate the nuisance or threat.
18. Limecorp 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 ground water and surface water.
19. Limecorp shall conduct all activities in compliance with all applicable local, state, and federal laws and regulations not explicitly identified in this Permit.
20. To the extent that the DWTM may be considered a solid waste and would require Limecorp 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 DWTM 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), Limecorp is hereby exempted from the applicable solid waste provisions of ORC Chapter 3734 and the rules adopted thereunder when the DWTM are stored or placed on the land for beneficial use as authorized in this Permit subject to compliance with all conditions in this Permit.

21. 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 Limecorp 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. Limecorp shall not place DWTM 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 in 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.
23. Limecorp shall not cause pollution or cause to be placed any DWTM in a location where they cause 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 24 hours of discovery.
24. 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.
25. Limecorp 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.
26. Limecorp 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, Limecorp shall notify the Director in writing of the conflict and shall comply with the Permit condition unless directed otherwise by the Director.
27. Pursuant to OAC Rule 3745-599-320(B), this Permit is not transferable.

E. Property Access

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

1. Enter upon the site where a regulate facility or activity is located or conducted or where records retained by Limecorp 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 Limecorp has failed to comply with this Permit or OAC Chapter 3745-599, or as otherwise provided in accordance with OAC Rule 3745-599-370.

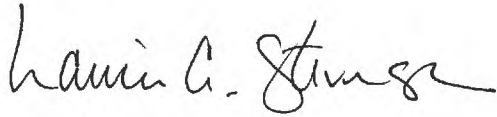
The Director may revoke this Permit if the Director determines that a nuisance condition or an adverse impact to public health, safety, or the environment exists. Immediately upon the effective date of the revocation of this Permit, Limecorp shall cease use under this Permit. The Director may require Limecorp to remove the Foundry Sand, blended Foundry Sand, and Soil Blends 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 lands 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

Sincerely,

A handwritten signature in black ink, appearing to read "Laurie A. Stevenson". The signature is fluid and cursive, with the first name "Laurie" being more prominent.

Laurie A. Stevenson
Director