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Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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APPROVAL FOR GENERAL USE

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Cur-Tech, LLC.
23 Ryan Street
Stamford, CT 06907

Trade name of technology and model: Cur-Tech CTL Systems (hereinafter the "System"). Schematic drawings of the System and a design and installation manual are a part of this Certification. This approval allows the installation of the above identified chambers without aggregate.

Transmittal Number: **X268062**
Date of Issuance: January 5, 2017
Date of Revision: January 30, 2017

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Certification to: Cur-Tech, LLC., 23 Ryan Street, Stamford, CT 06907 (hereinafter "the Company"), for General Use of the System described herein. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer and the System Owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

Marybeth Chubb, Acting Section Chief
Groundwater/Title 5/Reuse
Bureau of Water Resources

January 30, 2017
Date

Enclosure: *Standard Conditions for Alternative Soil Absorption Systems with General Use Certification and/or Approved for Remedial Use.*

I. Design Standards

1. The models listed in Table 1 are covered under this Certification.

Table 1: Chamber Dimensions

Model	Dimensions W x L x H Feet	Invert Height Inches
CTL-12	4 x 8 x 8	8
CTL-18	4 x 8 x 14	14

a. Includes an ABS plastic injection molded fin structure that is snapped together along each side.

b. This approval allows the use of the high capacity H-20 reinforced concrete chambers but makes no determination as to the chambers meeting the H-20 loading requirements.

2. The System is an open-bottom leaching unit molded from H-20 reinforced concrete chamber with an ABS plastic injection molded fin structure that is snapped together along each side as an integral part of the system. The design of the structure and way it snaps together gives the assembled structure strength and stability. Each assembly can be an endless chain. The plastic fin structure is covered with a filter fabric to prevent soil from entering. The fabric approved to cover the plastic part is Contech c-46nw or approved equal. The concrete chambers can have an optional 3 inch pipe imbedded in the top of the chamber. If the System is installed with stone aggregate then the "Effective Leaching Area" in Tables 2 and 3 is not applicable, and must be designed in accordance with the provisions of 310 CMR 15.000.

3. The total effective leaching area for any Chamber Model shall be calculated by multiplying the Effective Leaching Area per square foot of chamber times the total length of chamber from end cap to end cap including end caps.

4. For new construction or upgrades, the applicant can size the System in a trench configuration, using the effective leaching areas presented in Table 2.

Table 2: *Effective Leaching Area in Trench Configuration for New Construction and Remedial Sites

Model	Effective Leaching Area SF/LF
CTL-12	7.24
CTL-18	8.91

a. *See Section II, #7.

5. Systems installed on remedial sites shall be allowed to utilize the effective leaching areas presented in Tables 2 or 3, or additional reductions in soil absorption system may be allowed. In no instance shall the reduction in the soil absorption system required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284.

6. For new construction or an upgrade, the applicant can size the System in bed or field configuration, using the effective leaching areas presented in Table 3.

Table 3: Effective Leaching Area for Bed or Field Configuration New Construction and Remedial Sites

Model	Effective Leaching Area SF/LF
CTL-12	10.57
CTL-18	10.57

a. Leaching area is equal to 1.67 times bottom width only. Width of the Chamber for Bed or Field configuration includes the fins width of 1.165ft on each side of the concrete chamber.

7. When the System is used with a secondary treatment unit approved in accordance with 310 CMR 15.284 or 15.288, additional reductions in soil absorption system may be allowed. In these situations the reduction in the SAS cannot exceed the maximum allowed under the secondary treatment units' approval. In no instance shall the reduction in the soil absorption system area required in 310 CMR 15.242 exceed the maximum reduction allowed for alternative systems approved in accordance with 310 CMR 15.284.

II. Special Conditions

1. The System is an approved Alternative Chamber for use as an Alternative Soil Absorption System. In addition to the Special Conditions contained in this Approval, the System shall comply with the "*Standard Conditions for Alternative SAS with General Use Certification and/or Approved for Remedial Use*" (the '*Standard Conditions*'), except where stated otherwise in these Special Conditions.

2. New Construction This Certification is for the installation of a System to serve new construction or an existing facility with a proposed increase in flow, for which a site evaluation in compliance with 310 CMR 15.000 has been approved by the Approving Authority and the site meets the siting requirements for new construction, as provided in Paragraph 6 in section II (Design and Installation Requirements of the) *Standard Conditions.*

3. Remedial Site This General Use Certification also applies to the installation of a System for the upgrade or replacement of an existing failed or nonconforming system, provided that the facility meets the siting requirements for upgrades, as provided in Paragraph 7 in section II (Design and Installation Requirements of the) *Standard Conditions.*

4. The System shall be exempt from the minimum inlet spacing requirements of 310 CMR15.253.

5. The System shall have a minimum of one inspection port through the top of one of the chambers. The inspection port shall be capped with a screw type cap and accessible to within three inches of finish grade.

6. When the System is installed in trench configuration, then the system shall comply with these requirements:

   a) Length (each trench) 100 feet maximum (310 CMR 15.251(1)(a));

   b) The minimum separation distance between any two trenches shall be two times the effective width or depth of each trench, whichever is greater, or where the area between trenches is designated as reserve area, three times the effective width or depth of each trench, whichever is greater (310 CMR 15.251(1)(d));

   c) The effective leaching area shall be calculated using the bottom area and a maximum of two feet (per side) of side wall area for each trench (310 CMR 15.251(1)(e));

   d) Trenches shall be situated, where possible, with their long dimension perpendicular to the slope of the natural soil. Where possible they shall follow the contour lines (310 CMR 15.251(2));

   e) Trenches constructed at different elevations shall be designed to prevent effluent from the higher trench(es) flowing into the lower trench(es) (310 CMR 15.251(3));

   f) The area between trenches may be designated as system reserve area only where the separation distance between the excavation sidewalls of the primary trenches is at least three times the effective width or depth of each trench, whichever is greater (310 CMR 15.251(4)) - Cur-Tech, shall be separated by three times the actual width and are subject to other Special Conditions and limitations; and

   g) Effluent distribution lines exceeding 50 feet in length shall be connected and venting provided in accordance with 310 CMR 15.241 (310 CMR 15.251(11)).

7. When installed in trench configuration, approved Alternative Chambers greater than 3 feet wide such as Cur-Tech:

   a) shall be installed with a minimum separation distance between any two trenches of two times the actual width of the chamber, or where the area between trenches is designated as reserve area, three times the actual width of the chamber; and

   b) shall only be entitled to a maximum effective width of 3 feet for the purposes of calculating total effective leaching area.

8. When installed in a bed or field configuration, the System may be installed without distribution piping, but must comply with the following requirements in 310 CMR 15.252:

   a) the use of leaching beds or fields is restricted to systems with a calculated design flow of less than 5,000 gpd per leaching bed or field (310 CMR 15.252(1));

   b) the maximum length of chambers in series shall be 100 feet (310 CMR 15.252(2)(b));

   c) separation distance between adjacent beds/fields shall be ten feet (310 CMR 15.252(2)(f)); and

d) the effective leaching area shall include only the bottom area, not the sidewalls (310 CMR 15.252(2)(i)).

9. For Systems constructed in fill and installed, the System shall be installed as specified in 310 CMR 15.255 Construction in Fill, except the minimum 15 foot horizontal separation distance to be provided between the soil absorption area and the adjacent side slope shall be measured horizontally from the top of the chamber.

10. The System is exempt from 310 CMR 15.287, specifically items: (5) requiring written notification of alternative system prior to property transfer, (6) need for a certified operator, (9) need for an operation and maintenance contract with an operator and (10) deed notice requirement.

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