



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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GENERAL USE CERTIFICATION

Pursuant to Title, 310 CMR 15.00

Name and Address of Applicant:

Wastewater Alternatives, Inc.
2 Whitney Road, Suite 10
Concord, NH 03301

Trade name of technology and models: The Clean Solution alternative treatment system
Models: 250-R, 250PT-R, 250ST-R3, 250ST-R4, C-SAN600, C-SAN1000, C-SAN2500, C-SAN3000, C-SAN4000 and C-SAN8000 (hereinafter called the "System"). Schematic Drawings illustrating each System, a design and installation manual, owner's manual, operation and maintenance manual and an inspection checklist are part of this Approval.

Transmittal Number: X253165 (formerly W037676)

Date of Issuance: April 29, 2013

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 for General Use to: Wastewater Alternatives, Inc., 2 Whitney Road, Suite 10, Concord, NH 03301 (hereinafter "the Company"), certifying the System described herein for General Use in the Commonwealth of Massachusetts. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer, the Service Contractor/Operator and the System Owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

David Ferris, Director
Wastewater Management Program
Bureau of Resource Protection

April 30, 2013
Date

Technology Description

The System is a Secondary Treatment Unit (STU). The System is a submerged media attached growth biological treatment unit designed to treat sanitary wastewater. The effluent from a Title 5 septic tank or from the System's integral septic chamber, flows into the BioCon chamber or tank. The BioCon chamber contains plastic media providing the surface contact area for bacterial growth and wastewater treatment. The wastewater is continuously recirculated over the plastic media. A compressor provides the air for continuous mixing of the contents in the BioCon unit and to provide aerobic treatment. Effluent from the BioCon unit flows by gravity into the Settling chamber or tank, and then to a pump tank if applicable. Settled sludge and the treated effluent is then pumped to the soil absorption field (SAS) for final disposal. Sludge settled in the System requires periodic removal.

Conditions of Approval

The term "System" refers to the STU in combination with the other components of an on-site treatment and disposal system that may be required to serve a facility in accordance with 310 CMR 15.000.

The term "Approval" refers to the technology-specific Special Conditions, the Standard Conditions for General Use Certification of Secondary Treatment Units, the General Conditions of 310 CMR 15.287 and any Attachments.

For Secondary Treatment Units that have been issued General Use Certification for the installation of a System to serve a facility where the site meets the requirements for new construction and the design flow is less than 2,000 gpd, the Department authorizes reductions in the effective leaching area (310 CMR 15.242), subject to the Standard Conditions that apply to all Secondary Treatment Units with General Use Certification and subject to the Special Conditions below applicable to this Technology.

Special Conditions

1. The System is Secondary Treatment Unit with General Use Certification. In addition to the Special Conditions contained in this Approval, the System shall comply with all the "Standard Conditions for General Use Certification of Secondary Treatment Units", except where stated otherwise in these Special Conditions.
2. The System is approved for facilities with a design flow up to but less than 10,000 gallons per day (GPD) and where a conventional system with a reserve area exists or can be built on-site in full compliance with the new construction requirements of 310 CMR 15.000 and has been approved by the local approving authority.
3. The System, including a properly sized septic tank if required, shall be installed between the building sewer and the D-box or effluent pump chamber for disposal in the SAS of a system designed and constructed in accordance with 310 CMR 15.100 - 15.279, subject to the provisions of this Approval.

4. Descriptions of the different Clean Solution models are as follows:

- Models 250-R (concrete tank) and 250PT-R (plastic tank), designed for up to four bedrooms or less, require a separate septic tank preceding the BioCon chamber or tank. The septic tank must be constructed in accordance with Title 5, 310 CMR 15.223 through 15.226.
- Models 250ST-R3 and 250ST-R4 have an integral septic chamber and do not require a separate septic tank. The record drawings for these models, on file with the local approving authority, shall clearly indicate an area for a separate septic tank meeting the requirements of Title 5 and the drawings shall indicate that the area is for the sole purpose of installing a Title 5 septic tank in the future, if necessary. The System Owner shall not construct any permanent buildings or structures or disturb the site in any manner that would prevent the installation of a Title 5 septic tank in the future.
- The larger commercial models C-SAN600, C-SAN1000, C-SAN2500, C-SAN3000, C-SAN4000 and C-SAN8000 are custom designed based on both the flow rate and the strength of the waste stream. These models require installation of a separate septic tank constructed in accordance with Title 5, 310 CMR 15.223 through 15.226. These System designs shall be approved by the Company prior to Local approval and must meet Company requirements.

5. Access shall be provided to all tanks in the System in accordance with 310 CMR 15.228(2). System tanks including integrated Septic/ BioCon/ Settling chambers shall have manholes with readily removable impermeable covers of durable material provided at finished grade. Multi-compartment tanks shall have a manhole over each compartment with a minimum opening of 20 inches. Except for septic tank covers which are not required to be at grade, the frames and covers of all other access manholes and ports of the System components shall be installed and maintained at finish grade to allow for necessary inspection, operation, sampling and maintenance access.

6. When installing a System with a plastic tank, the following requirements must be met.

- The maximum burial depth must be specified on all design/septic system plans.
- All proposed System installations, including the plastic tank model, shall require buoyancy calculations in locations with high groundwater elevation. Tie downs and associated anchors may be required to prevent tank floatation. The buoyancy calculations shall be included on the Title 5 septic system plan for each System installation. System buoyancy calculations shall include consideration of the high groundwater elevation developed as required by 310 CMR 15.100 through 15.105. Design plans prepared in accordance with 310 CMR 15.220 shall include System anchoring and backstay details when necessary.
- If a System model with plastic tanks is not designed for traffic loading it shall not be located or installed in a vehicle traffic area. Where vehicles can possibly access model type suitable warnings shall be installed.