



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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APPROVAL FOR REMEDIAL USE

Pursuant to Title 5, 310 CMR 15.00

Name and Address of Applicant:

Fuji Clean USA, LLC
41-2 Greenwood Road
Brunswick, ME 04011

Trade name of technology and models:

Fuji Clean USA, models CE5, CE7, CE10 (hereinafter called the 'System'). Schematic drawings of the models and the manuals for Design, Installation, O&M and Owner and a technology inspection checklist are part of this Approval.

Transmittal Number: X264853

Date of Issuance: November 3, 2015

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental, Protection hereby issues this Approval for Remedial Use to: Fuji Clean USA, LLC, 41-2 Greenwood Road, Brunswick, ME 04011 (hereinafter "the Company"), approving the System described herein for Remedial 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, 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 Director
Wastewater Management Program
Bureau of Water Resources

November 3, 2015

Date

Technology Description

The System is a Secondary Treatment Unit (STU) that includes a circuitous flow train through a primary sedimentation chamber, anaerobic treatment chamber, and aerobic contact/filtration chamber all within the treatment tank.

Fuji Clean USA, models CE5, CE7, CE10

Wastewater flows into the sedimentation chamber (Chamber 1) where the solids and greases are separated from the wastewater by gravity. The effluent flows into the Anaerobic Contact Filtration Chamber (Chamber 2) where spherical-skeleton filter media aid fixed film and suspended-growth anaerobic micro-organisms to decompose organic matter. The wastewater then flows into the Aerobic Contact Filtration Chamber (Chamber 3) where waved board media and cylindrical hollow mesh media provide a large surface area for fixed-film aerobic bacteria growth and digestion of organic matter as well as filtration of the wastewater. Chamber 3 also provides for settling of sludge prior to discharge. Two air-lift pumps, each powered by a single linear diaphragm blower, provide air to the aerobic chamber as well as flow recirculation and equalization. Sludge generated in Chamber 3 is recirculated to the Sedimentation Chamber and discharge of treated wastewater is through an overflow effluent weir or controlled by the Effluent Air Lift Pump.

The approved System model and associated flow rates are as follows:

- Fuji Clean CE5, 0 to 450 GPD
- Fuji Clean CE7, >450 to 630 GPD
- Fuji Clean CE10, >630 to 900 GPD

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 conditions applicable to all STU’s, the General Conditions of 310 CMR 15.287, and any Attachments.

For Secondary Treatment Units that have been issued Remedial Use Approval for the upgrade or replacement of an existing failed or nonconforming system, the Department authorizes reductions in the effective leaching area (310 CMR 15.242), depth to groundwater (310 CMR 15.212), and/or depth of naturally occurring pervious material (310 CMR 15.240(1)) subject to the Standard Conditions that apply to all Secondary Treatment Units Approved for Remedial Use and subject to the Special Conditions below applicable to this Technology.

In addition to the requirements defined above, this technology will allow installation and operation of at least **50** on-site disposal systems with **monthly** testing of effluent for BOD₅, TSS, and pH. Results shall be submitted to the local Approving Authority and the Department of Environmental Protection (MassDEP) Wastewater Management Program Director in Boston. After installation of 50 systems with monthly monitoring data and upon the request of the permittee, the Department may determine that the frequency of monitoring may be reduced to

quarterly or that the limitation of 50 systems be removed and the permittee comply only with the special conditions referenced above. In the judgment of the Department this determination will be made based on whether results of sampling indicate that effluent quality is adequate. If the Department reduces the frequency of monitoring, the Department reserves the right to resume more frequent monitoring if effluent quality is not adequate.

Special Conditions

1. The System is a Secondary Treatment Unit Approved for Remedial Use. In addition to the Special Conditions contained in this Approval, the System shall comply with all the “Standard Conditions for Secondary Treatment Units Approved for Remedial Use”, except where stated otherwise in these Special Conditions.
2. The System is approved for facilities where the local approving authority finds that:
 - a) there is no increase in the actual or proposed design flow;
 - b) the System is for the upgrade of a failed, failing or nonconforming system; and
 - c) a conventional system with a reserve area, designed in accordance with the standards of 310 CMR 15.100 through 15.255, cannot feasibly be built on-site.

3. For design of these systems, a separate septic tank preceding the Fuji Clean USA processing is not required and the Title 5 septic tank requirements are not applicable to the processing tank. The processing tank must be sized, designed, and installed according to Company requirements.

The record drawings, on file with the local approving authority, shall clearly indicate an area for a 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.

4. The System, including a properly sized septic tank, if required, shall be installed between the building sewer and the effluent pump chamber for disposal to the SAS of a system designed and constructed in accordance with 310 CMR 15.100 - 15.279, subject to the provisions of this Approval.
5. The system must comply with the Standard Conditions for Secondary Treatment Units Approved for Remedial Use (<http://www.mass.gov/eea/docs/dep/water/wastewater/o-thru-v/standrem.pdf>)