



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-831-5508

Innovative/Alternative ISDS Technology Program

Vendor Information:

Biocycle, Inc.
P.O. Box 29496
Providence, RI 02909

Contact:

Biocycle, Inc.
61 Pilsudski Street
Providence, RI 02909
(401) 944-4000

Technology Name & Model Numbers:

Biocycle 525

Technology Type:

Aerobic Wastewater Treatment System
Class II

Certification Dates:

Issued: March 10, 1998

Renewed: December 31, 1998

Expires: December 31, 2000

CERTIFICATION

The RI Department of Environmental Management has reviewed the Class II Innovative/Alternative Technology application for the Biocycle wastewater treatment system, hereafter referred to as the "System". The design of the System is based on activated sludge and extended aeration principles. It utilizes a three-stage treatment process that includes anaerobic and aerobic treatment, followed by clarification. The System also incorporates an automatic sludge return via venturi from the clarifier to the primary chamber.

Based upon information contained in the application submitted by Biocycle Holdings, Ltd., hereafter referred to as the "Vendor", the Department hereby accepts the System for listing on the RI DEM Innovative/Alternative Technology List. Design and installation of the System shall be in accordance with the following terms and conditions:

I. Design Requirements

1. Septic systems utilizing this innovative/alternative System shall be allowed a 40% reduction from the required leach field size for conventional systems excluding leaching chambers (flow diffusers and galleys) as defined in SD 13.02 (a) and (b). This reduction is based upon the ability of the System to remove BOD and suspended solids as demonstrated by the data presented in the Vendor's submittal. No reduction in leach field size shall be allowed for non-conventional leach fields (i.e. those not included in SD 11.00 of the ISDS regulations).

2. The System may be used in four bedroom residential dwellings even though the design flow is only 525 gallons per day. However, the leach field sizing for a four-bedroom dwelling must be based on the full 600-gpd-design flow until otherwise specified by future rule change. Accordingly, the leach field size reduction credit would apply to the size required for a 600-gpd-leach field
3. Each applicant proposing a reduced leach field area shall demonstrate that sufficient land area is available on the lot to permit installation of a full size leach field. The full size leach field shall meet all ISDS regulatory requirements. (This is not a requirement that an entire "replacement" field to be available, only that enough additional land area be available to increase the "reduced" leach field area to standard size if ever necessary.)
4. Effluent from the system must be capable of meeting Class I National Sanitation Foundation (NSF) Standard 40.
5. Mechanical aeration is key to the performance of the System. To ensure Owner/Operator compliance with the System's operating requirements, all Systems shall be equipped with an hour meter and audible and visual alarms to indicate power interruption to the System. These indicators shall be mounted on a NEPA approved cabinet on the exterior of the building.
6. Each System installation shall meet all other applicable ISDS standards and receive prior approval by the Department pursuant to the regulations in effect at the time of application.
7. Design and installation shall be in strict conformance with the approved System design and installation manual and shall only be performed by a Rhode Island licensed Installer who has received training and is authorized in writing by the Vendor to install the System.
8. Under this approval, the System is not considered a nitrogen removal or pathogen removal system. While data has been submitted which shows the System's ability to significantly reduce total nitrogen, approval for this aspect of the wastewater treatment system is pending the receipt and evaluation of further data.

II. General Requirements

1. This Class II approval shall be effective until December 31, 2000.
2. If the Vendor wishes to extend this Class II approval beyond its expiration date, he/she shall apply for and obtain a renewal of this approval. The Vendor shall submit a renewal application along with the appropriate renewal fee as denoted in SD 23(j)(4) at least 90 days in advance of the expiration date of the approval.
3. The Vendor shall notify the Department at least 30 days prior to any proposed transfer of ownership of the System. Notification shall include the name and address of the new owner and a written agreement between the existing and new owner specifying a date for transfer of ownership, responsibility, and liability for the technology. All provisions of this approval shall be applicable to any new owners.
4. The Vendor shall provide any purchaser of the System with a copy of this approval letter prior to

III. Operation and Maintenance Requirements


1. Detailed operating instruction shall be provided to the Owner/Operator.
2. Systems shall be maintained according to the manufacturer's specifications.
3. A public or private maintenance entity shall be retained continuously for the life of the System and be available to perform needed maintenance repairs. Such entity shall perform an inspection of the treatment system at least twice annually. No agreement with a maintenance entity shall be for less than two (2) years.
4. The Vendor shall have an inventory of System replacement parts available locally.

IV. Reporting Requirements

1. The Vendor shall submit an annual report to the Department by November 30 of each year containing the following information for the previous 12 month period ending September 30 of the year: the number of systems installed in RI, the address of each installation and name of the owner and permit number, the number of inspection/maintenance calls conducted, and all known problems or failures experienced with a brief summary of the cause and remedial measures taken.
2. The Vendor shall report any termination or non-renewal of maintenance agreement to the Department and to the local wastewater management authority should one exist for that area.
3. Prior to the renewal of this certification, the results of the National Sanitation Foundation (NSF) Testing on the system shall be submitted to the Department.

V. Rights of the Department

1. The Department may suspend, modify or revoke this approval for cause, including but not limited to: non-compliance with any of the conditions or provisions of this approval, misrepresentation or failure to disclose all relevant data, or receipt of new information indicating that the use of the System is contrary to the public interest, public health or the environment.
2. This approval does not represent an endorsement of the System by the Department. This letter of approval may be reproduced only in its entirety.



Russell J. Chateaufneuf, P.E.
Chief of Permitting