RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-222-4462

Innovative/Alternative ISDS Technology Program

Vendor Information
Knight Treatment Systems, Inc.

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Oswego, NY 13126

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Local Contacts:

Technology Name and Model Number:
White Knight™ Microbial Inoculator/Generator
Models WK-40 and WK-78

Technology Type:
Treatment System - Class II

Certification Date:
Issued: June 6, 2006
Expires: June 6, 2008
Reissued: June 6, 2008
Expires: June 6, 2010

CERTIFICATION

The RI Department of Environmental Management (Department) has reviewed the Innovative/ Alternative Technology application for the White Knight ™ Microbial Inoculator/Generator hereafter referred to as the "System". The System is contained within a HDPE cylinder, designed to be installed into a septic tank, continuously inoculating the tank with non-pathogenic ISO-500™ bacterial cultures. An air pump provides fine bubble aeration and circulation within the System bringing the bacteria into contact with fixed film substrate and the suspended organic compounds in the septic tank. The ISO-500™ bacteria released by the System digest organic wastes in the septic tank and in the leachfield.

Based upon information contained in the application submitted by Knight Treatment Systems, Inc., hereafter referred to as the "Vendor", the Department hereby accepts the System for placement on the Innovative/Alternative Technology List. Design, installation, and operation of the System shall be in accordance with the following terms and conditions:

I. Design Requirements

A. General

1. The System is approved for renovation of Individual Sewage Disposal Systems (ISDSs) which are organically clogged resulting in hydraulic failure. The System may also be installed in a properly functioning ISDS as well as a new ISDS, by application.

30% post-consumer fiber

2. The System is approved for all uses with no design flow restriction.

3. No reduction in required leachfiled area may be attributed to use of this System.

4. The System may not be installed in cesspools, block, or steel tanks, or in substandard tanks.

5. In no case may the System be installed in a tank of a volume less than 1,000 gallons.

6. Septic tanks in which the System is to be installed shall be equipped or retro-fitted with an effluent filter.

7. Since constant aeration is necessary for proper performance of the System, the air pump must be operational 24 hours a day. To ensure owner/operator compliance with this condition, all Systems shall be equipped with an hour meter and a visible and audible motor/power failure warning light, mounted on a NEMA approved cabinet on the exterior of the building.

8. System design shall be in strict conformance with the Department approved System Design and Installation Manual and shall only be performed by appropriate Department-licensed persons who are authorized in writing by the Vendor to do so.

9. System installation shall be in strict conformance with the Department approved System Design and Installation Manual and shall only be performed by appropriate Department-licensed persons who are authorized in writing by the Vendor to do so.

10. Each System installation shall meet other applicable Department regulations and receive prior approval by the Department pursuant to the regulations in effect at the time of application.

B. Use With Existing ISDS

1. Before the Department will allow use of the System at a site, a Repair Application must be submitted.

2. A copy of the completed Vendor's Site Qualification form and a copy of the originally approved plan or a system plan based on the Vendor-required site investigation, identifying location and size of tank, d-box, if used and the type and size of leaching area in use, must be submitted with the ISDS repair application.

C. Incorporation in New Construction

1. Before the Department will allow use of the System at a site, a New Building Construction Application must be submitted.

2. Only conventional and Class I I/A leachfield technologies as referenced in the list of approved proprietary I/A technologies are permitted for use with this System.

II. General Requirements

1. This Class II Approval shall be effective until 2 years from the approval date.

2. If the Vendor wishes to extend this Class II Approval beyond its expiration date, the Vendor shall submit a renewal application 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. Upon completion of Department review, written confirmation of the status of the Approval will be provided to the Vendor.

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 the sale of the System.

5. The Vendor shall hold, or cause to be held, two training seminars for Rhode Island licensed designers before the expiration or renewal of this certification. The Vendor shall notify the Department of the proposed date and time of each training seminar at least one month in advance of the proposed seminar and coordinate any public announcement or solicitations with this office. A list of Vendor trained and approved distributors, with at least two names shall be submitted by the Vendor to the Department within 6 months of this approval.

   Training

   a) The Vendor shall hold two training seminars for Rhode Island Licensed Designers and Installers who wish to be trained before the expiration of this certification.

   b) The first shall be held within the first six (6) months of the date of this certification.

   c) The Vendor shall submit to the Department a detailed agenda, material to be distributed to attendees and a list of presenters and their credentials at least one month prior to offering a training seminar.

   d) Following the seminar, the Vendor is required to provide each attendee who successfully completes the training with documentation of having done so.

   e) Following each training seminar, a list of those who have satisfactorily completed the training shall be submitted to the Department.

   f) The Vendor shall make available to the public, a means of verifying individuals, by name and category, who have received training and are authorized in writing by the Vendor to design, install or maintain the System.

6. The Vendor shall maintain capacity either directly or through authorized distributors, to deliver the System to all holders of Rhode Island permits on which it is specified.

III. Operations and Maintenance Requirements

1. The Vendor must offer for sale a minimum two-year Operation and Maintenance (O & M) contract.

2. Detailed operating instruction shall be provided to the Owner/Operator.

3. Systems shall be maintained according to the manufacturer's specifications, which shall include requirements and scheduling for start-up and shutdown of seasonally used Systems, protection of the System and the biological component from freezing, and when the System may be turned off.

4. O & M requirements and an O & M agreement, for the System shall be recorded by the owner in the land evidence records of the applicable city/town prior to the Department issuance of a certificate of conformance for the installation.

5. The owner shall retain a Vendor-trained and Vendor-authorized O & M provider to perform preventative maintenance, perform repairs and respond to emergency calls for the life of the System. Such O & M provider shall perform inspections at least twice annually. No agreement with an O & M provider shall be for less than 2 years.

6. The Vendor shall have an inventory of 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:

   a) The number of Systems installed in Rhode Island,
   b) The address of each installation and name of the owner and permit number,
   c) For each system, the number of inspections / maintenance calls conducted and a brief comment regarding activities performed and observations including replenishment of the inoculum and ponding height, if any,
   d) All known problems or failures experienced with a brief summary of the cause and remedial measures taken,
   e) Number of and location of sites rejected and why.

   Electronic submission is encouraged.

2. The Vendor shall report any termination or non-renewal of maintenance agreements to the Department and to the local wastewater management authority should one exist for that area.

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.

Issuance Date: 6/6/08

Russell J. Chateauneuf, P.E.
Chief of Groundwater and Wetlands Protection