Advisory Opinion
From the
Technical Review Committee
For the
New England Interstate Regulatory Cooperation Project

Product/Technology name:

Orenco Systems, Inc. (OSI) Hydrosplitter

Applicants name & address:

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NEI Category:

2 - System Modification

Date of Opinion:

July 31, 1997

Project Background:

The New England Interstate Water Pollution Control Commission (NEIWPCC) in cooperation with the New England Governors Conference (NEGC), EPA Center for Environmental Industry and Technology (CEIT), EPA's National Small Flows Clearinghouse (NSFC) and the New England state environmental/health agencies responsible for the administration of on-site wastewater treatment systems are undertaking a 12 month pilot project for the regional voluntary evaluation of innovative/alternative on-site wastewater products/ technologies. The goal of the project is to facilitate the technical evaluation of innovative/alternative on-site wastewater products/ technologies on a regional basis. This should result in expediting acceptance of innovative/alternative on-site wastewater treatment products/technologies by utilizing a Technical Review Committee (the Committee) to conduct an independent evaluation of product/technology performance. The Committee made up of New England State regulators and advisors will assess each product/technology on its merits, backed by quality data, and render an Advisory Opinion. The benefit of the Committee is to assist regulators in carrying out their responsibilities for evaluating these technologies in a more efficient manner.

The Committee has defined three categories of On-site I/A technologies:

1. **Material Replacement**
2. **System Modification**
3. **Advanced Wastewater Treatment**

Applicant's Description of Product/Technology:
The OSI Hydrosplitter can be used in place of the distribution box in pump or siphon dosed systems that use gravity trenches for final distribution (i.e., 4" perforated pipe). The Hydrosplitter uses gate valves or removable orifice plates installed inside PVC unions to regulate proportional distribution to each trench or lateral.

Because of its ability to proportion the flow, the Hydrosplitter allows the use of unequal gravity trench lengths while still maintaining proper distribution to the trenches. In general, the OSI Hydrosplitter technology provides greater assurance that the entire field will receive proportional amounts of effluent. This even distribution prevents overloading of one portion of the field which can cause premature failure of a portion of the field.

The Hydrosplitter can also be used to provide equal distribution of pressurized drainfields on sloping sites. Because separate lines are run to each pressurized lateral, drainback from the upper laterals to the lower laterals cannot occur and even pressurization occurs quicker than the conventional center or end-fed manifold.

Technology Claims:
The above-mentioned applicant submitted the following Claims of product performance with the formal submittal. The applicant was seeking the Committee's validation of these claims as part of the product/technology's consideration for regional evaluation in the Advisory Opinion:

Claim 1: *The OSI Hydrosplitter can be used in place of the distribution box in pump or siphon dosed systems that use gravity trenches for final distribution (i.e., 4" perforated pipe)*

Claim 2: *Use of the OSI Hydrosplitter technology provides greater assurance for equal distribution when compared to the use of a D-box in dosed systems.*

Claim 3: *The OSI Hydrosplitter can be used to provide equal distribution of pressurized drainfields on sloping sites.*

Technical Review Committee's Response to Claims:
The Technical Review Committee's opinion is based on the Committee's evaluation of available information on the product/technology and relates to the specific products, materials, and specifications stated in the Technology Claim(s) of performance.

X The Committee agrees that the product/technology meets the above-stated performance Claims. The Committee reached this decision via a unanimous vote.

The applicant should request a determination from the committee for any modifications to the product/technology. The product/technology is also evaluated for the quality of the data, wastewater science, and the technology's apparent merit as an innovative/alternative on-site wastewater treatment technology.

General Observations/Concerns:

After thoroughly evaluating all of the available information, the Technical Review Committee has identified the following concerns that may affect the approval of said technology in a state:

1. *The performance of the OSI Hydrosplitter depends highly on the quality of design and installation. The applicant should insure that proper design applications are used.*

Recommendations:

Based on the Technical Review Committee's evaluation, the Committee recommends the following items to improve or insure product performance:

1. *The product should be installed and operated in accordance with manufacturer's directions.*
2. *The Hydrosplitter should be periodically checked to inspect all parts and performance.*
3. *Additional monitoring and/or performance data should be sent to the Committee as the applicant acquires it.*
4. *A septic tank effluent filter should be used in any system in which a septic tank is utilized.*

State Regulations:

A positive Advisory Opinion shall in no way be considered a substitute for compliance with individual state regulations. Every state's regulations are designed to reflect the concerns of that state. Information generated in this opinion is intended to alleviate the investigative work required by an individual state for the consideration of said technology for approval as an alternative/innovative technology. Before state approval of the technology, the technology must comply with all pertinent state regulations. The Technical Review Committee also recommends that each state have a control for insuring that the above-listed concerns are met, addressed, or closely monitored and tracked.