

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

Product/Technology name:

The Equalizer

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 (NEIWPC) in cooperation with the New England Governors Conference (NEG), 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 Equalizer is a self-adjusting leveling device made from engineered plastic, incorporating a patented weir opening for maintaining equal flow from all outlet pipes in a conventional distribution box.

Technology Claim(s):

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: The Equalizer will compensate for the movement of a distribution box (D-box) due to frost, backfilling, or improper installation. If at anytime the D-box is not level, the Equalizer will self regulate the flow of effluent to all of the outlet lines. This process is accomplished by the modified "V"- notch weir. As effluent travels through the lowest weir (lowest because water, or effluent finds its own level), it builds up a head before going through, forcing the effluent back to the higher outlet lines. This unique process is then complemented by the bacteria (living & dead) in the effluent that adhere to the weir forming a dam across the weir. This dam will form first in the outlet, or outlets that are being fed the most effluent, (the lower lines) forcing the head pressure, the elevation of the effluent back to the higher outlet lines. This cycle of dam growth will continue for the life of the system, always compensating for D-box movement.

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 Claim. 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 product may not stay fit snugly in the outlet pipe. This was a concern in the state of Maine, but the product seems to have been redesigned to include form-fitting ribs to hold the product in place.*
- 2. The weir's function may be by-passed if the D-box is fed by a pumped or dosed system. A larger D-box or baffling may prevent this from occurring.*

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 D-box should be periodically checked to manually adjust the weir levels, if uneven distribution is apparent.*
- 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 states' 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.