

John Elias Baldacci
Governor



John R. Nicholas
Commissioner

**Maine Department of Health and Human Services
11 State House Station
Augusta, Maine 04333-0011
Division of Health Engineering**

January 21, 2005

Mr. Stephen Dix, P.E.
Septic Solutions, LLC
2 Coult Lane
Old Lyme, CT 06371

Subject: Use of Eljen Indrains in the State of Maine

Dear Mr. Dix:

In response to your request for our agency's opinion on the performance of Eljen Indrains, we would like to provide the following statement concerning their history and performance.

The product was approved for use in Maine in 1988 with a rating of 48 sf per 4'x3' unit. Additional requirements included providing 12 inches of sand between the media rows and 6 inches of sand around the units. Therefore, the footprint of this geotextile media filter prior to application to the soil is greater than the base rating of the media. As many designers specify bed shaped systems, this cluster design is really closer to a series of sand-lined trenches in fill. Maintaining this horizontal separation of the media likely influenced the success of the product in a reduced footprint compared to larger stone beds with minimal sidewall. We do believe that the space between the media rows plays an important role in the success of the technology. Because of this, we would not consider changing this requirement. What we see today is when space is an important consideration, the product is commonly specified.

Over the last seventeen years, we have seen a steady increase in use of the product and estimate (unofficially) that over 4,500 systems have been installed in our state. To date we know of few problem systems, and can attribute those problems to construction issues or misuse by the system owner. We see no reason to change the rating of this product across the spectrum of soils found in the state of Maine. While we do not endorse the use of any specific pretreatment or absorption system, we can say that designers in the state are using this product extensively. We understand that linear loading is common practice, which is recommended by national leaders from the University of Wisconsin and has been formally addressed as part of the design in some states like Connecticut. We have brought this issue to the attention of designers and certainly encourage them to make the systems as long as possible.

We believe that no further reduction in the system footprint is warranted. With pretreatment; we do not allow reductions in this footprint in accordance with the manufacturer's recommendation. However, we have accepted adjustments in media density or spacing in this envelope, as well as separation to groundwater or bedrock with pretreatment.

Finally, in closing, our agency has been impressed with the performance of alternative media systems such as the Eljen Indrain. Our opinion is not based on a difference in performance as much as a difference in homeowner acceptance and tolerance. Manufacturers have a reputation they must protect and homeowner expects these systems to perform or they report the problems in short order. Therefore, any problems are corrected much more quickly with these products and the performance record is therefore more accurate than with natural media technologies.

If you have any questions or comments you can reach me at my desk by calling 207-287-4735.

Sincerely,

A handwritten signature in cursive script that reads "Russell G. Martin".

Russell G. Martin, PE, F.NSPE
Program Director, Wastewater & Plumbing Control
Division of Health Engineering