

June 3, 2002

Terralift Inc.
Attn.: Steve McBrian
104 E. Main Street
Stockbridge, MA 01262

Subject: Product Registration, Terralift and Terralift 2000

Dear Mr. McBrian:

Thank you for your letter dated September 28, 2001 (received February 7, 2002) regarding your company's product. This information was submitted pursuant to Chapter 18 of the Maine State Plumbing Code, Subsurface Wastewater Disposal Rules (Rules), for registration for use in Maine. I apologize on behalf of the Division for the delay in responding to your submission.

Hereafter, the term "applicant" shall refer collectively to Terralift Inc., its staff, its representatives, and Terralift operators/distributors, unless otherwise specified; and the term "owner" shall refer collectively to the property owner upon which an onsite sewage disposal system is located, his or her staff, and his or her representatives, including contractors, unless otherwise specified. The word "Terralift" shall collectively refer to Terralift and Terralift 2000.

Product Description

Terralift uses a long, narrow probe and an integral pneumatic hammer to penetrate soil to depths of three to six feet, depending upon the depth of the disposal area. It then forces air into the soil at a controlled rate (typically on the order of 300 p.s.i.) using a high pressure compressor, fracturing the soil, and creating a network of fissures. Polystyrene beads are injected into the fissures at a rate of approximately one liter per "blast" for the stated purpose of preventing the fissures from collapsing.

Claim

According to the information you provided, the Terralift device is designed to restore malfunctioning onsite sewage disposal systems and improve systems of less than optimal performance. This is accomplished by creating a fractured soil condition adjacent to the disposal area into which effluent can drain, as well as "breaking up" the disposal area's bio-mat.

Determination

Onsite sewage disposal systems installed in Maine since 1974 are located 12 to 24 inches above the seasonal high groundwater table or other limiting factor, such as bedrock or hardpan soils. This office is concerned that using Terralift as described in the applicant's product literature, i.e., creating fissures as deep as six feet below grade, will create direct conduits between the disposal area and the permanent and/or seasonal high groundwater tables. These conduits would then allow untreated effluent to drain into the water tables, and thereby contaminate ground water, and potentially, drinking water supplies.

On the basis of the information submitted and other relevant information in the Division's files, the Division has determined that Terralift is acceptable for use in the State of Maine on a **conditional basis**, provided that it is operated in conformance with the manufacturer's directions and the following conditions.

1. Terralift is allowed for use only for onsite sewage disposal systems which conform to the minimum vertical separation distances from limiting factors as prescribed under provisions of the Rules in effect at the time of use. If the site conditions are not documented, the applicant and/or the owner shall retain the services of a licensed Site Evaluator to prepare an HHE-200 Form (soil test and application) for the purpose of documenting the site conditions.
2. The applicant shall advise the Local Plumbing Inspector in writing and in advance, of any proposed deployment or operation of Terralift.
3. Prior to use of Terralift on any malfunctioning onsite sewage disposal system the applicant shall document the nature and cause of the malfunction. This documentation shall be prepared by a licensed Site Evaluator or Professional Engineer retained by the applicant, and may be in the form of a written report, a copy of which shall be provided to the owner and the Local Plumbing Inspector.
4. Terralift shall not be deployed or operated in a manner which will create or cause to be created fissures, cracks, channels, or other direct conduits between an onsite sewage disposal system's disposal area and either the seasonal high ground water table or permanent ground water table; including but not limited to, deployment or operation of the device lower than the limiting factor.
5. Terralift shall not be deployed or operated within the boundaries of the disposal area of any onsite sewage disposal system.
6. Terralift shall not be deployed or operated within 100 feet of any private potable water supply nor within 300 feet of any public potable water supply.
7. Terralift shall be operated as follows with respect to setbacks of the affected onsite sewage disposal system to public bathing beaches:

System Design Flow:	< 1000 gpd	1000 gpd to 2000 gpd	>2000 gpd
Setback	100 ft.	200 ft.	300 ft.

8. Terralift shall not be allowed for use on undeveloped property for the purpose of improving a site which otherwise does not meet the minimum soil and site conditions required by the Rules for First Time Systems.
9. The applicant shall install groundwater monitoring wells for any non-single family dwelling onsite sewage disposal system upon which Terralift is used. One well shall be located up-gradient of the disposal area and at least one well shall be located down-gradient. On no less than a monthly basis for a period of not less than 12 months, the applicant shall test groundwater samples from each well for the following parameters: five day Biochemical Oxygen Demand, Total Suspended Solids, Nitrate Nitrogen, and coliform bacteria. The results of these tests shall be submitted to the Division on no less than a quarterly basis.
10. In the event that groundwater monitoring demonstrates pollution of the groundwater table by a non-single family dwelling onsite sewage disposal system upon which Terralift has been used, use of the affected system shall immediately cease and the applicant shall notify the Local Plumbing Inspector.

11. In the event that the product fails to perform as claimed by the applicant, use of Terralift in Maine shall cease until the applicant and the Division have reached a mutually acceptable agreement for resolving the failure to perform as claimed.

Because installation and owner maintenance has a significant effect on the working order of onsite sewage disposal systems, including their components, the Division makes no representation or guarantee as to the efficiency and/or operation of Terralift. Further, registration of this product for use in the State of Maine does not represent Division preference or recommendation for this product.

If you have any questions please feel free to contact me at (207) 287-5695.

Sincerely,

A handwritten signature in black ink that reads "James A. Jacobsen". The signature is written in a cursive, flowing style.

James A. Jacobsen, Environmental Specialist IV
Wastewater and Plumbing Control Program
Division of Health Engineering
e-mail: james.jacobsen@state.me.us

/jaj

xc: Product File
Chris Moore, Bioremediation Services