



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
DRINKING WATER AND ENVIRONMENTAL HEALTH DIVISION



PHILLIP D. ROOS
DIRECTOR

May 6, 2025

VIA EMAIL

Ryan Zaremba
SludgeHammer Group
4772 US 131, Building D
Petoskey, Michigan 49770-9220

Dear Ryan Zaremba:

SUBJECT: Notice of Proprietary Treatment Technology Design Manual Validation for the Michigan Department of Great Lakes, Environment, and Energy (EGLE), Septic Replacement Loan Program

Manufacturer: **SludgeHammer Group, Ltd.**

Product Type, Name and Model: **Aerobic Bacterial Generator S-400**

The Department of Environment, Great Lakes, and Energy (EGLE), Drinking Water and Environmental Health Division (DWEHD), Onsite Wastewater Management Unit (OWMU) has received on April 25, 2025, your proprietary treatment technology design manual submission for use of **SludgeHammer Model S-400** within Michigan's Septic Replacement Loan Program (SRLP).

EGLE's Invitation to Submit a Manufacturer's Design and Management Manual outlined the following requirements for Proprietary Treatment Technology submissions, including but not limited to:

- Manufacturers specification sheets and associated intended use and flow rates.
- Documentation of National Safety Foundation (NSF) Standard 40 Certification (certified and tested by an ANSI accredited body) for each specified model.
- Certification testing data and field-testing data for each specified model.
- Design and Installation Manual.
- Certification requirements for designers, installers, and service providers.
- A homeowner Operation and Maintenance Manual including maintenance frequency and effluent testing requirements.
- A recommended field inspection and maintenance form.
- Responsible manufacturers contact name and information for questions regarding design, installation, troubleshooting, or other management concerns.
- A statement in the manual indicating its use if specific to the SRLP only.

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- A statement that any changes in the manual will be submitted to EGLE for consideration.

OWMU has reviewed your documents submitted on April 25, 2025, and determined that your submission successfully met all of the requirements outlined by EGLE for proprietary technology validation under the SRLP. This correspondence grants authorization for the use of SludgeHammer Model S-400, by local health departments, in permitting of replacement failing, near-failing, or similarly inadequate onsite wastewater treatment systems under the EGLE SRLP in Michigan.

This authorization is granted with the following contingencies Special Conditions:

1. Systems utilizing this technology must be designed, permitted, and installed in accordance with the following documents:
 - a. "SludgeHammer Installation Manual", April 25, 2025, and
 - b. The Septic Replacement Loan Program, "Program Minimum Standards, May 2025" or current version as amended.
2. The SludgeHammer Aerobic Bacterial Generator shall be installed in a separate secondary treatment tank/chamber **after** the primary septic tank. Systems shall be designed, permitted, and installed with an adequately sized primary treatment septic settling tank (gallon capacity based on local code requirements) preceding any secondary alternative treatment technology.
3. Wastewater treatment systems incorporating treatment equipment certified per NSF Standard 40 by an ANSI accredited body, with effluent treatment to 30 mg/L BOD and 30 mg/L TSS or below, are supported provided the soil dispersal system is designed with thirty-six-inch (36") separation between the infiltrative surface and the limiting layer (seasonal high-water table, water table, greater than sixty percent [60%] rock material, bedrock, or other soil horizon or condition that interferes with infiltration).
4. System design and management plans in accordance with EGLE validated manufacturer's design manual for the SRLP are prepared by a qualified consultant in private practice for local health department review. This validated design manual contains specific requirements related to design, installation, operation, and maintenance of these technologies. The landowner where this technology is incorporated must agree to specific requirements for ongoing operation and maintenance of the system.
5. Any revisions to the manual must be submitted and approved by EGLE prior to implementation. Failure to do so may result in the revocation of approval for use within the SRLP.
6. This validation is valid for five years from the date of this letter, unless revisions to the manual are requested by this office or made voluntarily by SludgeHammer Group, Ltd and approved by EGLE. This approval will be considered invalid once a revision has been submitted and approved by EGLE.
7. Should the product fail to meet current NSF/ANSI Standard 40 certification requirements in the future, this validation is thereby void.

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8. Approval of the proprietary treatment product for use in accordance with the manufacturer's design manual is limited to replacement sites that do not meet the minimum standards set in the SRLP PMS for a Category 1 system. Approval of the design manual and use of the proprietary product in the SRLP should not be considered an endorsement by EGLE for local health department to apply less restrictive standards than the local code requirements, including when those requirements can be met.
9. This validation does not represent an endorsement of the product by the Michigan Department of Environment, Great Lakes, and Energy for use other than under the SRLP.

Should you require further information, please feel free to contact Anne Mitchell, SRLP Program Manager at EGLE-DWEHD-SRLP@Michigan.gov.

Sincerely,

Tanya Rule, R.S.
Environmental Manager
Onsite Wastewater Management Unit
Drinking Water and Environmental Health Division
Department of Environment, Great Lakes, and Energy
RuleT@Michigan.gov, 906-458-3812

cc: Anne Mitchell, SRLP Manager, EGLE
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