

## MEMORANDUM

DATE: January 4, 2001 **GMP #111**

TO: District Environmental Health Managers  
District Health Directors  
OEHS Staff

FROM: Donald J. Alexander, Director  
Division of Onsite Sewage and Water Services

SUBJECT: Experimental Protocol for AlasCan/Clear Water™  
Onsite – Experimental – AlasCan/Clear Water™

The Department has approved an experimental application from AlasCan/Clear Water™ Wastewater and Water Treatment Systems following a review by the Division in accordance with § 441 of the *Regulations*. The Department's approval of this protocol is only for the AlasCan/Clear Water™ System A and B and is not transferable to any other product. Applications for products other than AlasCan/Clear Water™ are subject to the provisions of § 441.

The AlasCan/Clear Water™ experimental protocol was submitted in accordance with § 260 and § 441 of the *Regulations*. All testing associated with the protocol will be conducted under the auspices of a professional engineer licensed in the Commonwealth of Virginia. Therefore, formal plans are not required for each system design but the application submittal must include adequate plans and specifications to assure proper installation. System design, installation, and operation shall comply with the requirements described in the **Experimental Protocol**, AlasCan/Clear Water™ System design, construction and installation literature, the *Regulations*, and standard engineering practice.

This GMP is intended to provide guidance on how to process applications for AlasCan/Clear Water Systems. The AlasCan protocol includes two separate systems identified as System A and System B.

System A includes a composting toilet for black water treatment and a biological system and filtration for treating the greywater. The greywater is disposed into a sewage system acceptable under the *Regulations* or policy.

System B includes the same components as found in System A but provides for additional treatment for the greywater through disinfection and reverse osmosis. Thus, the treated greywater may be reused within the household for all purposes except for drinking and food preparation. No discharge is anticipated for this system.

The back-up system may include any generally approved system contained in the *Regulations* or policy. The backup for the AlasCan/Clear Water™ System composting toilet is another composting toilet that meets the requirement of the *Regulations*.

The following process outlines the procedures necessary to obtain a construction permit for an AlasCan/Clear Water™ System:

1. Owner or agent files an application including the associated fee as would be required for any application to construct a sewage system. The application may be for reviewing a new site, modifying a previously issued permit, or converting a certification letter to a construction permit for residential dwellings with flows less than 1,000 GPD. Local health departments, at their discretion, may require formal or informal plans and specifications depending on the complexity of the application.
2. If the application is for System A, then the local health department will perform a review of the proposal in accordance with VDH policy and regulation to assure that the site and soil conditions for treatment and disposal of the greywater meet the requirements specified in the *Regulations*. This review may include a site and soil evaluation for disposal of the greywater effluent if not provided with the application or by a non-AOSE. The local health department may perform a Level 1 review if the soil and site evaluation is certified by an AOSE as specified by the *Emergency AOSE Regulations*. Upon finding that the site and soil conditions comply with the *Regulations*, including an adequate back-up system, then the local health department can issue a construction permit. For the purposes of this experiment, the effluent quality can be considered secondary effluent as defined within the *Regulations*.
3. If the application is for System B, then the local health department must assure that an appropriate back-up system exists and that the proposal meets the plans and specifications in the experimental protocol and the AlasCan/Clear Water™ System literature.
4. When the system is installed, the professional engineer or someone working under his supervision will inspect the AlasCan/Clear Water™ System. After installation, both

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the engineer and contractor must submit a completion statement signifying that the system was installed in accordance with the design plans and specifications, including the sewage system (System A) before an Operations Permit for an Experimental System is issued. The local health department, when necessary, will inspect the sewage system for System A.

5. After an Operations Permit is issued by the local health department, a copy of the permit and operations permit shall be sent to the Division of Onsite Sewage and Water Services for tracking purposes. The Operations Permit will be valid for 36 months from the date of issuance and may be renewed if necessary to complete the experimental process

Attachment: Experimental Protocol

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Onsite-Product Approval- AlasCan/Clear Water™ System