



# Manual for On-Site Sewage Management Systems

SECTION G | EXPERIMENTAL SYSTEMS

Environmental Health Section

**SECTION G - EXPERIMENTAL ON-SITE SEWAGE MANAGEMENT SYSTEMS****1) Definition**

An Experimental On-site Sewage Management System is defined as “any on-site sewage management system proposed for testing and observation and provisionally approved for such purpose by the Department but which has not been fully proven under field use.”

**2) Request for Approval**

Manufacturers shall make application to the Department for an individual experimental on-site sewage management system (experimental system) temporary approval for the installation of a limited number of systems to be evaluated over a prescribed period of time. The application shall include the following as applicable:

- A. Remittance of the current fee for the technical review of new on-site sewage management products/systems.
- B. Description of the system, including materials used in construction and its proposed use.
- C. Summary of pertinent literature, published research and previous experience and performance with the system.
- D. Results of any available testing, research or monitoring of pilot systems or full-scale operational systems conducted by a third-party research or testing organization.
- E. Identification and the qualifications of any proposed research or testing organization and the principal investigators, as well as an affidavit certifying that the organization and principal investigators have no conflict of interest and do not stand to gain financially from the sale of the experimental system.
- F. A monitoring protocol, outlining a research and testing plan for a representative number of installations. The protocol shall include a defined list of objectives, parameters to be monitored and test methodology, data collection and reporting forms and a schedule for the completion of the outlined activities. The minimum period of research, testing and monitoring is three years.
- G. Specification of the number of systems proposed to be installed, the criteria for site selection, system monitoring and reporting procedures.
- H. Operation and maintenance procedures, system classification, proposed management entity and system operator.
- I. Procedure to address system malfunction and replacement or premature termination of any proposed research or testing.
- J. Notification of any proprietary information system, component or device.

**3) Technical Review**

The Technical Review Committee (the Committee) shall review applications for such proposed experimental systems and upon their recommendation, the Department may forward an

experimental system temporary approval and system registration to the manufacturer. A copy of this approval will be distributed to all District Environmental Health Program Directors. The approval will indicate the conditions under which a limited number of a given type of experimental system may be installed as outlined in applicable parts of section 2B through 2J above. No more than ten experimental systems of one individual type system will be allowed to be installed in each District, unless the Committee specifies a greater or lesser number may be allowed.

#### **4) Permitting**

Property owners, authorized distributors or installers shall make an application for each installation of an approved experimental system to the County Environmental Health Office. In addition to documentation required by Chapter 511-3-1-.03 (2), the Committee and the Manual, the application will include a consent letter from the property owner or authorized agent, on forms provided by the Department, acknowledging the experimental nature of the system and holding the Georgia Department of Public Health and cooperating County, District and State personnel harmless regarding the installation or use of an experimental system. The property owner or authorized agent shall agree to allow the distributor, installer and environmental health personnel from the County, District and State, access to the site at reasonable hours to evaluate the functioning of the system.

The County Environmental Health Office will evaluate the permit application, which must include data on soils acceptability; such data may include but not be limited to: test holes, percolation tests and soil report (s) by a Certified Soil Classifier. An on-site evaluation will be performed, and a proposed experimental system installation permit developed for each proposed installation site.

When permitting installation of the experimental system, the permit conditions shall include the requirement of a reserve area sufficient for installation of a conventional system, except:

- A. When an existing and properly functioning wastewater system is available for immediate use including connection to a public or community wastewater system; or
- B. When the experimental system is to serve as a repair to an existing malfunctioning system.

The special maintenance, monitoring, testing and reporting requirements shall also be specified as permit conditions, in accordance with the research and testing program/protocol approved by the Committee. All required review documentation will be forwarded along with the proposed installation permit to the District for approval.

The District shall approve or deny requests for individual installations of approved experimental systems based on the review of the required information. Once three installations of a given type of experimental system have been permitted, the District may delegate approval to the County for subsequent permit approvals. Approval or denial shall be issued within ten days of the receipt of the complete review information.

The County will issue an installation permit once it is signed by the permit applicant, and payment of appropriate County permitting fees have been received; only then can construction of the experimental system begin.

#### **5) Installation**

The manufacturer will identify its distributors and installers in the state of Georgia that have been instructed and trained on the installation, operation and maintenance of the experimental system. Installers shall be certified in accordance with 511-3-1-.16. Certified installers shall be the ONLY personnel approved to install experimental systems. Failure to carry out the installation permit conditions shall be grounds for permit suspension or revocation. The County staff will inspect the installation of the experimental system. Once final approval has been granted to the installation, a copy of the completed inspection documentation will be forwarded through the District to the Department. Repairs or modifications to an approved experimental system installation must be recorded and reported by the manufacturer to the County for issuance of an appropriate repair permit, inspection and approval of the repair (s).

#### **6) Record Keeping**

The Department, District and County will maintain a separate filing system and database to track experimental system installations.

#### **7) Monitoring and Testing**

As indicated in Section 3 above, the Committee will approve design of a monitoring, testing and reporting protocol as appropriate for each approved experimental system. The Department, District and County, as applicable, shall implement the protocol. Unless otherwise approved by the Committee, no more than ten of a given experimental system will be allowed to be installed in each District during this monitoring and testing period.

#### **8) Final Disposition**

Upon completion of the monitoring, research and testing, the manufacturer or appropriate research and testing organization or individual and appropriate District and County Environmental Health Offices, shall provide a final report including recommendations on future use of the system to the Committee for review. Based upon the Committee's action, the Department may issue a final disposition on the status of the experimental system. This will consist of, but not necessarily be limited to, denial or approval as an alternative on-site sewage management system for statewide use.

**9) Table, Figures and Forms**

**Form 9.G Administrative and Monitoring Criteria for an Experimental Sewage System**

The undersigned, in support of the attached proposal to use a(n) \_\_\_\_\_  
 (System Type)  
 experimental sewage system (ESS) to serve the property at, \_\_\_\_\_  
 (Address)  
 \_\_\_\_\_, submits the following:  
 (Municipality/City) (State) (County)

This proposal is for a full-time, single family residential or other property. It is not for a seasonal, part-time or recreational use structure.

As owner of the property to be served by a(n) experimental sewage system. I acknowledge the importance of conducting the monitoring, reporting and maintenance activities in a timely fashion and accept responsibility for performing these activities for a period of three (3) years from the date of system installation and start-up. I realize that the monitoring program is a condition of the permit, which is enforceable by law.

The monitoring program for this system shall consist of the following activities:

- (1) Determining whether the observation ports contain ponded liquid and recording these results;
- (2) Measuring and recording the depth of any liquid in the ports;
- (3) Conducting a visual examination of the areas immediately adjacent to and down slope of the experimental sewage system for seepage, sponginess, leakage or any other evidence of discharge of liquid from the experimental sewage system; and recording and reporting the results of this examination on the monitoring report form included in this proposal (Form 8.G);
- (4) Recording monthly water usage data (gallons);
- (5) Performing the activities in 1, 2, 3, and 4 above monthly and submitting a report to the County Environmental Health Program Director (CEHPD) with a copy forwarded through the District Environmental Health Office to the Department every three months (quarterly).

I am aware that this is an experimental system that may fail and that in the event this system malfunctions, I am solely responsible to replace or repair the system in accordance with the replacement provision of this proposal. (See Plot Plan for replacement area location and provisions for its protection).

I acknowledge my responsibility to inform the CEHPD immediately of any malfunction or modification of the system by others or myself.

As owner of the property, I grant environmental health personnel from the County, District and Department access to my property for the purpose of conducting additional testing, observation and monitoring for the duration of the experiment proposal (three years from the date of system activation).

Further, I agree to notify the CEHPD at least seven days prior to system installation so the District and Department may observe and monitor the system installation.

The septic tanks, which are part of this experimental sewage system, will be pumped at least once, during the last quarter of the third year, to prolong system life. Evidence, in the form of a receipt from the septic tank pumper, that the pumping has been performed will be submitted with the last quarterly monitoring report at the end of the third (3rd) year.

\_\_\_\_\_  
 Property Owner

\_\_\_\_\_  
 Application Date

**Form 10.G DPH Experimental Sewage System Monitoring Record**

Property Owner:				Installation Date:					
Address of System:				Type of System:					
Instructions: Record all information each month, use the comments column to record maintenance activities, locations of surface discharge of sewage effluent or describe unusual conditions.									
Observation Date (mo/day/yr)	Liquid Seepage Over Trench or Down slope?		Observation Ports – Liquid Levels						Comments
	Yes	No	Port #1			Port #2			
			No	Yes	Depth (Inches)	No	Yes	Depth (Inches)	
Note: Monitoring and reporting of results from this experimental system is a permit condition enforceable by law. Each quarter (every three months) for three years from the time of installation, a completed copy of this form must be submitted to the following offices:									
Office			Name			Address			
County Environmental Health Program Director									
District Environmental Health Program Director									
Georgia Department of Public Health Land Use Program						Environmental Health Section 2 Peachtree Street, NW, 13 <sup>th</sup> Floor Atlanta, GA			