

ADDENDUM

RFEI for A DEMONSTRATION OF INNOVATIVE ALTERNATIVE ONSITE WASTEWATER TREATMENT SYSTEMS IN SUFFOLK COUNTY

Questions and Answers MAY 9, 2014

Question 1: *The outline states with an asterisk that the county plans a General Use approval with NSF 245 by the end of the year. Does this mean that units with an NSF 245 certification would not have to participate in the field study at all?*

Answer 1: After review of the required information to be submitted with the RFEI application, Suffolk County may permit the Applicant to install up to 5 demonstration systems when proper County and/or State approvals are obtained. The Suffolk County Department of Health Services (SCDHS) has refined the projected steps required to obtain approval for an innovative alternative onsite wastewater treatment systems in Suffolk County. When the approval process is implemented it will consist of three phases: Pilot Systems, Provisional Approval, and General Use Approval. The tables and timeline below represent the general approval process overview. Generally, systems installed under this RFEI which have NSF 245 certification or ETV certification (and have provisional or general approval in a comparable jurisdiction with a minimum of 15 systems installed in that jurisdiction with 2 years of sampling data that meets Suffolk County requirements) may be permitted to fast track the pilot installation and provisional approval phases subject to SCDHS evaluation of system operation and sample results. When the approval process is implemented, Applicants with systems that have NSF 245 or ETV certification are required to follow the standard approval process unless participating in the RFEI demonstration (in which case they may be eligible to fast track the pilot phase per above).

Standard Innovative Alternative Onsite Wastewater Treatment Systems Approval Process			
	<i>Pilot Systems</i>	<i>Provisional Approval</i>	<i>General Use Approval</i>
# Systems Req'd	5 to 15	50	50+
Months of Sampling	0 to 18	36	n/a

Approval Process for Innovative Alternative Onsite Wastewater Treatment Systems Installed As Part Of The RFEI W/ NSF 245 certification or ETV certification (and have provisional or general approval in a comparable jurisdiction with a minimum of 15 systems installed in that jurisdiction with 2 years of sampling data that meets Suffolk County requirements)			
	<i>Pilot Systems</i>	<i>Provisional Approval</i>	<i>General Use Approval</i>
# Systems Req'd	1 to 5	50	50+
Months of Sampling	0 to 6	24	n/A

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Question 2: *Why are 50 systems required to be installed as part of the provisional phase of the innovative alternative onsite wastewater treatment systems approval process?*

Answer 2: The number of systems, 50, is the same as required in the Massachusetts 3 tiered approval process. At this time Suffolk County is developing its system based on that working model. General use approval can be applied for after 24 months of sampling data is available from the fiftieth installed system.

Question 3: *If an Applicant proposes less than 5 systems will they be penalized when their RFE application is reviewed by Suffolk County?*

Answer 3: No, the applicant will not be penalized but fewer systems will provide less data for evaluation.

Question 4: *If an Applicant has a treatment process with different size systems utilizing the same process does the applicant have to install 1 to 5 systems for each size of the system?*

Answer 4: No, the systems installed can all be the same size or the Applicant can install systems of different sizes that utilize the same treatment process. If an Applicant utilizes more than one treatment process or technology within their product line, each treatment process or technology will have to be demonstrated to be considered for approval in Suffolk County.

Question 5: *If a treatment system has not been approved by NSF, ETV or NYS then could it still be considered?*

Answer 5: Yes, an innovative alternative onsite wastewater treatment systems that has not received NSF 245 or ETV certification may be demonstrated under the "County Facilities Demonstration Program" as outlined in the RFEI.

Question 6: *Would you consider adding to the RFEI systems that have passed NSF 245, ETV or MD BAT?*

Answer 6: At this time systems with NSF 245 or ETV certifications may apply for the "Residential Demonstration Program". All other systems must apply for the "County Facilities Demonstration Program".

Question 7: *If a technology is originally submitted without NSF 245 or ETV certification and subsequently obtains NSF 245 Certification in 2015 must the system be required to complete the pilot installation or will it move directly to provisional use?*

Answer 7: As stated in the answer to question 1, systems installed under this RFEI "Residential Demonstration Program" which have NSF 245 certification or ETV certification (and have provisional or general approval in a comparable jurisdiction with a minimum of 15 systems installed in that jurisdiction with 2 years of sampling data that meets Suffolk County requirements) may be permitted to fast track the pilot installation phase subject to SCDHS

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evaluation of system operation and sample results. Therefore, if a system enters the demonstration without NSF 245 or ETV certification as part of the "County Facilities Demonstration Program" and obtains one of those certifications at a later date and before the demonstration project is complete then that system may be eligible to fast track the pilot installation and provisional approval phases of the Suffolk County approval process subject to SCDHS evaluation of system operation and sample results.

Question 8: *The outline states that the Applicant would be responsible for demonstrating their unit with no cost to participating homeowners. Does that mean just the cost of the treatment unit itself? Cost of all tanks? Cost for the drain field? Cost for labor? Cost for design?*

Answer 8: The Applicant would be responsible for providing their unit at no cost, which includes the treatment component, septic tank, leaching field/pool, labor, electrical installation, design, sampling, etc. Existing septic system components at the demonstration sites may be utilized if approved by the Department of Health Services. Certification of the existing structures by a licensed design professional may be required.

Question 9: *Who is responsible for sampling and those costs?*

Answer 9: The Applicant of the innovative alternative onsite wastewater treatment system is required to obtain samples and pay for the samples.

Question 10: *What effluent parameters will be sampled? Will phosphorus be included in the sampling?*

Answer 10: The Applicant is required to prepare a sampling methodology for sampling effluent total nitrogen, BOD, and total suspended solids. Any additional parameters that the Applicant would like to sample such as nitrate, nitrite, ammonia, fecal coliform, etc. may be proposed as part of the sampling methodology. The methodology must meet or exceed the sampling protocols specified by SCDHS. In addition, Applicants are responsible for hiring a NYS certified laboratory to take the effluent samples. Samples should be composite samples taken over a 24hr period at the point of discharge to the leaching field/pool. The sampling methodology is subject to the approval of the Suffolk County Department of Health Services. Phosphorus is not required but Applicants are free to propose phosphorus sampling and/or provide available phosphorus data.

Question 11: *What are 24hr composite samples?*

Answer 11: An automated sampler should be used to collect hourly grab samples that will be comingled to form the 24 hour composite.

Question 12: *Would Suffolk County consider treatment tiers of (50%, 75%, or 90+%) nitrogen removal.*

Answer 12: The systems to be installed under the RFEI must be capable of removing 50% nitrogen as compared to effluent from a standard septic tank. Therefore, septic tank effluent total nitrogen

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is assumed to be 39 mg/l, which means the systems proposed must produce an effluent total nitrogen of 19 mg/l or less.

Question 13: *For systems that recirculate to achieve denitrification, how does Suffolk County plan to get a representative influent sample?*

Answer 13: Applicants are not required to obtain influent samples (See Answer 8). However, influent data may be submitted if available.

Question 14: *If there is a soil based treatment system then it may be more difficult to sample. Are there requirements for sampling those types of systems?*

Answer 14: The Applicant will be required to establish a sampling methodology to obtain effluent total nitrogen, BOD, and total suspended solid samples from soil based treatment systems. The methodology must meet or exceed the sampling protocols specified by SCDHS. Proposed sampling methodologies are subject to the approval of SCDHS.

Question 15: *What types of statistical evaluation must be used when evaluating system performance?*

Answer 15: SCDHS will evaluate the performance of a system based on the mean of all sample results taken from all installations of a given system. As part of the standard approval process and as depicted in answer 1 approval timeline 75% of the pilot systems are required to meet treatment requirements for at least 12 months in order to obtain provisional approval. General use approval may be obtained when 90% of the provisional systems meet treatment requirements for at least 36 months.

Question 16: *Once the project is complete then what is the result? (If the product passes then the product is "approved" for use in Suffolk County?)*

Answer 16: Under the innovative alternative onsite wastewater treatment system approval process Applicants will be permitted to install up to 5 demonstration systems. As stated in the answer to question 1, systems installed under this RFEI "Residential Demonstration Program" which have NSF 245 certification or ETV certification (and have provisional or general approval in a comparable jurisdiction with a minimum of 15 systems installed in that jurisdiction with 2 years of sampling data that meets Suffolk County requirements) may be permitted to fast track the pilot installation and provisional approval phases subject to SCDHS evaluation of system operation and sample results. Systems installed under the "County Facilities Demonstration Program" will be used as part of the standard approval model.

Question 17: *What is the project timeline?*

Answer 17: RFEI applications are due on May 16, 2014. Suffolk County anticipates selected systems to be installed by September 2014.

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Question 18: *Has an engineering firm been hired to conduct any feasibility studies for extending sewers?*

Answer 18: Suffolk County has performed and has ongoing studies evaluating the feasibility of extending sewers in certain parts of Suffolk County. In addition, Suffolk County is in the process preparing a RFP, to be issued Summer 2014, to ascertain a consultant to specify the recommended means of wastewater treatment for each parcel in the County (sewering, cluster decentralized treatment system, conventional onsite septic system, and innovative alternative onsite wastewater treatment system).

Question 19: *What are the means by which Suffolk County would require homeowners to upgrade their system to an innovative alternative onsite wastewater treatment system?*

Answer 19: Suffolk County will initially permit the use of innovative alternative onsite wastewater treatment system by homeowners voluntarily wishing to install them. In addition Suffolk County will evaluate the need for requiring homeowners to upgrade their system to an innovative alternative onsite wastewater treatment system in the future.

Question 20: *The homes that will receive the treatment system, are they new construction or are they planned to be homes with failing septic systems?*

Answer 20: Either existing homes with failed systems or existing homes with functioning sanitary systems that can be retrofitted are planned to receive the innovative alternative onsite wastewater treatment systems as part of the RFEI demonstration. New construction will not be acceptable as a demonstration site.

Question 21: *Are the sites to receive the innovative alternative onsite wastewater treatment systems planned to be seasonal use or year-round use?*

Answer 21: This demonstration project is expected to have systems installed by September 2014. A seasonal use residence will not be occupied for a significant period after system installation. Therefore a seasonal residence will not be an acceptable demonstration site.

Questions 22: *How will Suffolk County select the "Residential Demonstration Program" and the "County Facilities Demonstration Program" sites?*

Answer 22: It is anticipated that County staff will begin working with Applicants to identify demonstration sites after the County selection committee makes its recommendations on the selection of potential qualified Applicants for participation in the demonstration projects. The goal is to have all site selections completed no later than July 2014. Applicants that qualify for participation in the Residential Demonstration Program are free to perform preliminary work to find interested homeowners. The Department of Economic Development and Planning will be

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developing a list of Suffolk County owned properties that will be available for the County Facilities Demonstration Program.

Questions 23: *When will Suffolk County provide detailed guidelines on the properties to be used as part of the demonstration?*

Answer 23: Guidelines are expected to be defined by the time the County selection committee makes its recommendations on the selection of potential qualified Applicants for participation in the demonstration projects.

Question 24: *If an applicant has an existing system already installed in Suffolk County will they be permitted to use the system as part of the demonstration project?*

Answer 24: This will be evaluated on a case by case basis. The existing system installation will have to meet all the requirements of this RFEI. The system will have to meet all performance requirements and facilitate the effluent sampling necessary to verify total nitrogen reduction. There cannot be any safety issues with the existing system. There should also be a minimum of 1 new installation to supplement the existing system. For the County Demonstration Project the installation must be at a Suffolk County owned site.

Question 25: *Will Suffolk County permit reduced leaching field sizes when an innovative alternative onsite wastewater treatment system is installed?*

Answer 25: Not as part of this demonstration project. However, note that nitrogen reductions associated with leaching fields can be discussed as part of the submission.

Question 26: *Will eco-toilets be permitted to participate in the demonstration project?*

Answer 26: All proposals submitted will be evaluated. No technology is excluded from consideration. There is also no guarantee that all proposed systems will be approved for participation in the demonstration project. Eco-toilets should be proposed for testing on sites with an existing back-up conventional sanitary system.

Question 27: *Are systems proposed as part of the demonstration required to meet specific storm or coastal resiliency requirements?*

Answer 27: As stated in the RFEI, special priority will be given to systems which demonstrate coastal resiliency principles but no specific storm or coastal resiliency functions are required to participate in the demonstration project. Proposals should explain in detail any aspects of the technology that make the system resilient in the event of a coastal storm event.

Question 28: *Can Suffolk County provide a list of licensed septic system installers within the County for the Applicants?*

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Answer 28: The County intends to provide a list of companies that have Liquid Waste licenses. The applicants will have to contact the licensees to determine which of these companies perform septic system installations and may be qualified to install an I/A OWTS.

Questions 29: *Are the services of Suffolk County septic system installers to be paid for by the applicant or via a grant from Suffolk County?*

Applicant 29: All costs will be incurred by the Applicant.

Question 30: *Will there be any types of grant funding sources to help pay for the installation of the demonstration systems?*

Answer 30: None expected at this time.

Question 31: *Why is the company financial data required? The Applicants are private companies and would consider this confidential information.*

Answer 31: The financial data is required to determine the stability of the Applicant and predict the ability of the Applicant to maintain operations into the future in order to provide technical services and parts to consumers of their products within Suffolk County.

Question 32: *After the demonstration project and when the County's innovative alternative onsite wastewater treatment system program is established, will Suffolk County provide financing options to the residence of the County such as low interest loans, tax incentives, grants, etc.?*

Answer 32: Suffolk County has reviewed several financing systems used by other states and localities in the northeast. The County is currently pursuing multiple options and evaluating the feasibility of these options in Suffolk County. At this time no decisions have been made.

Question 33: *If you do not participate in the either demonstration project will it be possible to attain general approval in Suffolk County?*

Answer 33: If you do not participate in the RFEI demonstration projects you will be able follow the standard approval model at such time that additional piloting is approved in Suffolk County.

Question 34: *Suffolk County is using nitrogen effluent concentration as the standard. What about nitrogen mass loading?*

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Answer 34: Effluent nitrogen concentration is readily measurable. Flow patterns in residential septic systems is highly variable making flow measurements and mass loading determination problematic to perform at a potential 210,000 I/A OWTS installations.

Question 35: *Will the applicant be able to sample the effluent of the current system at the demonstration site to establish a base line for nitrogen reduction?*

Answer 35: The parameters for these demonstration projects are established in the RFEI. Applicants can sample the current effluent if they desire and submit the data to the County but the County does not anticipate changing the requirements of this demonstration project.