

Virginia Department of Health
Office of Environmental Health Services

**Interim Guidance:
Implementation of the
Alternative Discharging
Sewage Treatment
Regulations for Single
Family Home Dwellings
12VAC5-640**

February 3, 2016

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Acronyms

AOSE: Alternative Onsite Soil Evaluator
OSE: Onsite Soil Evaluator
PE: Professional Engineer

Definitions

"Biochemical oxygen demand, five day" or "BOD₅" means the quantitative measure of the amount of oxygen consumed by bacteria while stabilizing, digesting, or treating biodegradable organic matter under aerobic conditions over a five-day incubation period; BOD₅ is expressed in milligrams per liter (mg/l).

"Reliability" means a measure of the ability of a component or system to perform its designated function without failure or interruption of service. Overflow criteria, such as an allowable period of a noncompliant discharge, are utilized solely for the establishment of reliability classification for design purposes and are not to be construed as authorization for, or defense of, an unpermitted discharge to state waters. The reliability classification shall be based on the water quality and public health and welfare consequences of a component or system failure.

"Reliability Class I" means a measure of reliability that requires a treatment system design to provide continuous satisfactory operation during power failures, flooding, peak loads, equipment failure, and maintenance shut-down. For the purposes of this chapter, continuous operability shall be defined as restoring proper operation or otherwise eliminating the out-of-compliance discharge within 24 hours. This class includes design features, such as additional electrical power sources, additional flow storage capacity, and additional treatment units that provide operation in accordance with the issued permit requirements.

"Reliability Class II" means a measure of reliability that requires a treatment design that limits out-of-compliance discharges due to power failures, flooding, peak loads, equipment failure, and maintenance shut-down to less than 36 hours. This class includes design features such as alarms with telemetry to the operator, additional treatment units, or additional flow storage capacity that provide operation in accordance with the issued permit requirements.

"Reliability Class III" means a measure of reliability that requires a treatment design that limits out-of-compliance discharges due to power failures, flooding, peak loads, equipment failure, and maintenance shut-down to less than 48 hours. This class includes design features such as onsite alarms and owner initiated operator notification to address the alarm condition to provide operation in accordance with the issued permit requirements.

"Total residual chlorine" or "TRC" means a measurement of the combined available chlorine and the free available chlorine available in a sample after a specified contact time.

"Total suspended solids" or "TSS" means solids in effluent samples that can be removed readily by standard filtering procedures in a laboratory and expressed as mg/l.

"Treatment level 2 effluent" or "TL-2 effluent" means effluent that has been treated to produce BOD₅ and TSS concentrations less than or equal to 30 mg/l each.

"Treatment level 3 effluent" or "TL-3 effluent" means effluent that has been treated to produce BOD₅ and TSS concentrations less than or equal to 10 mg/l each.

PREFACE

Introduction

This manual is designed primarily to assist staff in the implementation of the Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings 12VAC5-640 (Discharge Regulations). An index to the *Discharge Regulations* can be found in Appendix A. No attempt was made to cover every possible problem or outcome that may arise. Its purpose is to provide guidance, accountability and focus on the actions and decisions necessary to accomplish the goal.

This is an update to the 1995 manual for the *Discharge Regulations*. The *Discharge Regulations* were revised December 16, 2015, and this manual reflects the revised regulations. Actions are identified with an associated purpose or outcome. Procedures are defined to accomplish each action and an individual is designated to do the action. Time frames for the completion of the action and level of review are also included. The processes described are generic with the purpose or desired outcome of each action defined. If questions arise, or if a second opinion is necessary, the EHS is advised to confer with their supervisor.

Background

The *Discharge Regulations* apply to single family homes discharging less than or equal to 1000 gallons of wastewater per day which are registered under the Department of Environmental Quality's (DEQ's) Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Domestic Sewage Discharges of Less than or Equal to 1,000 gallons per day (9VAC25-110) (General Permit). The *General Permit* is under DEQ's VPDES program which authorizes discharges to surface waters of Virginia. DEQ, under the guidance of the U.S. Environmental Protection Agency (EPA), implements the stream protection requirements of the Federal Clean Water Act using the VPDES program.

Program Goals

The goals of the discharging system program are to protect both public health and the environment. The public health risks related to exposure to improperly treated human waste are detailed in GMP #2. Diseases such as Salmonellosis, Shigellosis, Cholera, Viral Hepatitis A, and Viral Gastroenteritis can be related to exposure to improperly treated human waste. Given that humans and pets have the potential to come into contact with discharges permitted through this program, it is critical that the discharging systems be maintained and operated properly. Appendix B contains a handout that may be given to homeowners that informs them of the importance of maintaining their system.

The Health Department's mission is to guide citizens through the permitting process and educate them on the on-going operation and maintenance requirements of their discharge treatment system. The *Discharge Regulations* and DEQ's *General Permit* are the tools we have to accomplish this mission.

An overview

The public service aspect of the regulations provides a permitting mechanism whereby relief can be obtained for some lots that are not suitable for on-site sewage disposal systems. Public health is protected through the proper siting of systems, the proper selection of systems, and through a two-fold enforcement program. The first enforcement strategy in the regulations is to assure that individual system owners properly operate and maintain their systems. The second strategy is directed at system manufacturers. The Department's intention is to assure that the only systems permitted are those that can function reliably within the operation and maintenance (O&M) constraints of the regulations.

The permitting process has been revised with the December 16, 2015 update of the *Discharging Regulations*. The focus of the program is on outcomes and how well systems function. The Department of Health intends to make the permit process as understandable as possible for citizens seeking a permit. It is also our intention to assure that citizens are as fully informed as possible about their responsibilities to operate and maintain a discharge treatment system.

DEQ vs VDH Role

DEQ issues the *General Permit* that authorizes the discharge based on VDH's site evaluation recommendation through the Combined Application. All *General Permits* have the same expiration date. DEQ updates and reissues the *General Permit* every 5 years. Existing permitted systems generally have to reapply for coverage under the *General Permit*.

VDH issues the construction permit and the operation permit for each system. VDH is charged with ongoing inspection, compliance and enforcement of the permitted facilities. While DEQ may take enforcement action, VDH will generally take the lead in any enforcement action.

Delegation and Responsibility

Nothing in this manual is intended to prevent the appropriate delegation of an action to a qualified subordinate. The delegation of an action does not diminish the responsibility of the delegating individual. For example, this manual places the responsibility for scheduling client appointments with the environmental health specialist. In many offices the actual work may be done by a clerk operating under the general guidance of the environmental health specialist or an environmental health manager. This practice is acceptable provided the environmental health specialist assures that the action is completed. In other words, if the contact is not made, it remains the environmental health specialist's responsibility to make an appointment for a site visit. Equally important, some offices accomplish actions using higher levels of management than designated in this manual.

Responsibility may be assigned higher than designated in this manual, but not lower. The intention of this manual is to assure that certain minimum quality checks and balances exist, not to dictate the structure by which they will be accomplished. Adapting these

checks and balances into your structure is acceptable. When doing so, remember that actions can be delegated upward or downward; responsibility can only be reassigned upwards.

Communication

Effective communication is probably the most important measure of a work unit's effectiveness. Good relationships are the foundation of good communication. Where good communication exists, information moves up as well as down. One of the best rules for deciding what needs to be communicated is simply, "No one likes surprises." This is especially true of your boss (no matter whether you are the newest environmental health specialist or the Commissioner). If something happens your supervisor is likely to hear about - good, bad or indifferent - take the time to inform your supervisor.

Enforcement Attitude

The Department's enforcement program matches resources and program goals. The goals of this program, as well as the potential health risks, dictate a relatively stringent enforcement approach.

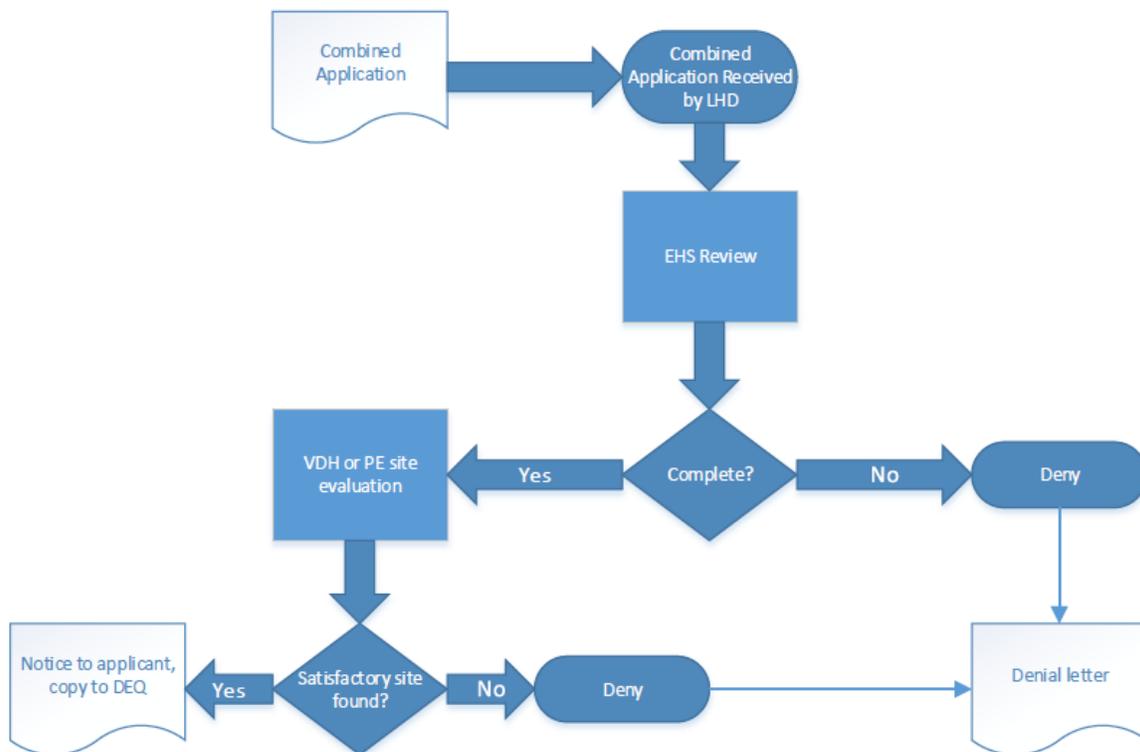
Installation inspections, by VDH, the private sector or both, will be used to help assure that systems are installed as designed and permitted. On-going monitoring and sampling/results will be used to initiate necessary repairs, adjustments and maintenance.

Education and assistance to the public are necessary; however, when systems fail to achieve the discharge limits in the General Permit, increasingly strict enforcement actions will be taken to obtain compliance. Nothing in this manual should be interpreted as promoting leniency toward individuals who own and operate discharging systems in violation of these regulations. Violators shall be apprised of the situation, and then be given a reasonable time to comply. Failure to make repairs or adjustments will result in a notice of alleged violation and may result in civil penalties and/or further legal action if the problem is not corrected.

Combined Application Receipt and Processing

Overview

The application process for an alternative discharging system begins with the denial of a site for onsite options in accordance with 12VAC5-640.30D and the applicant's expressed desire to pursue a discharge option. In most cases, the EHS, private OSE, and/or PE evaluating the site for onsite options will begin considering the discharge option on the same visit during which onsite options are eliminated as this is typically when the applicant expresses an interest in pursuing the discharge. During this phase, it is incumbent on the onsite professional to discuss the discharge application, discharge permitting processes, and the owner's responsibilities for operating and maintaining these systems post-installation. Many applicants will have some very broad idea of the discharge option, but, most will not be familiar with the process regarding the ongoing/recurring system monitoring, operation, and maintenance (O&M) and will have many questions. For VDH personnel, matters of cost are best referenced to the private sector, but certainly an applicant should be made aware of the ongoing/recurring O&M requirements and costs that are part of ownership. An example letter to the owner is provided in Appendix C which transmits a copy of the Combined Application Form and relays the owner's responsibilities under a discharge permit.



Receipt of a Combined Application

Purpose: To initiate the process for obtaining the *General Permit* to discharge from DEQ through an evaluation of a proposed discharge point to determine compliance with *VDH Discharge Regulations*.

Individual Responsible: Receipt of the application will be by office services personnel. However, prior to receipt, VDH EH professionals may have provided advice and/or assistance in filling out the Combined Application. While not obligated, VDH personnel should help prospective applicants with the completion of the Combined Application as a matter of good customer service as many applicants will find this to be an intimidating process. The review of the Combined Application is assigned to EH personnel according to District protocol. However, office structure should be in place to assure that application assignment is immediate. This may mean it is assigned according to job duties, territory, or some other mechanism.

Procedure: Once the Combined Application is received it must be reviewed for completeness. In some cases, applicants may have discussed, or contracted with a PE for design services. In these cases, the PE has likely provided the necessary detail for the Combined Application process, but, some applicants will rely heavily on VDH personnel for assistance. While not obligated, VDH personnel should help prospective applicants in the completion of the Combined Application as a matter of good customer service. Should information be missing or erroneous on the Combined Application, the EHS should notify the Applicant and/or the submitting PE to correct the noted deficiencies. Generally, every effort should be made to have these issues corrected by requesting an office visit by the applicant to review the submittal to eliminate the need to send denial letters. An EHS may make corrections to the form with applicant or PE input so long as it is documented that the changes/edits were agreed upon by the involved parties.

The survey plat requirement for the Combined Application may be waived in accordance with GMP 2015-01. GMP 2015-01 outlines the criteria and contains the required forms to request a waiver.

Level of Review/Time Constraints: The review process for the Combined Application falls mainly on the EHS, though an EH Supervisor and/or Manager should be part of the process prior to a final determination of completeness or incompleteness. There are no regulatory time constraints for this process, however, as a matter of practice, the review of a Combined Application should be completed within five days of its receipt. If deficiencies are noted and an applicant does not make needed edits/corrections within five days of verbal notice, a letter of denial spelling out corrective actions may be warranted. Denials should never be sent until supervisory personnel have first reviewed.

Site Evaluation

Purpose: The site evaluation is conducted by VDH EHS personnel to determine if the site complies with the requirements of the *Discharging Regulations*.

Individual Responsible: The site evaluation is generally conducted by the EHS to whom the Combined Application review was assigned.

Procedure: While not required, the site evaluation should be conducted in the presence of the Applicant and/or the PE, if one has been contracted by the Applicant. This will help expedite the process should questions arise during the evaluation. The EHS should document the evaluation with a site sketch that denotes measurements between the proposed discharge site and all required regulatory set back distances. Use a copy of the Combined Application to verify that all required information is documented.

The EHS is responsible for conducting a comprehensive evaluation of the area to be permitted and is expected to review records on file at the local health department. During the site evaluation, the EHS is expected to identify and locate relevant structures that may impact on, or be impacted by, the proposed discharging system. This includes structures that can be seen as well as those that cannot be seen, but can be reasonably assumed to exist such as wells and sewage disposal systems on adjacent properties. Under no circumstances should an EHS rely exclusively on the information submitted with an application to the exclusion of conducting a thorough field evaluation.

By the conclusion of the site evaluation, the EHS shall inform the applicant whether or not the site complies with VDH requirements, and VDH will forward the application to DEQ for consideration for a discharge permit. If the site evaluation concludes that the area does not meet regulatory requirements, the applicant should be advised of any, additional work which may help the applicant obtain a permit. In the event the permit must be denied, the applicant should be advised of any options available that may change this decision. A letter explaining the results of the site evaluation shall be sent to the applicant and a copy placed in the file and VENIS.

Level of Review: Environmental Health Supervisor

Time Frame: The site evaluation should be conducted within 10 days of receipt of a complete Combined Application.

Processing a Waiver for a Failing Onsite Sewage System

Purpose: When a discharge system is proposed for repairing an existing failing onsite sewage disposal system, and the site location criteria in 12VAC5-640-400 (classification of permissible discharge points), 12VAC5-640-420 (required setback distance requirements from discharge points and downstream channels), 12VAC5-640-470 H (governing the prohibition of discharge system installation within a 100 year flood plain), and, the dimensions of the required discharge point easement requirements specified in subdivision 2 of 12VAC5-640-450 cannot be met, the department may issue a written waiver that specifies the criteria that are being waived, and the rationale for the waiver.

Waivers may only be considered when

- 1) The design will reduce an existing health hazard, or, will improve or negate environmental impacts associated with the existing discharge.
- 2) The design will not increase the waste load generated by any additions to the dwelling except when necessary to provide for minimum facilities necessary for good sanitation. The minimum facilities for a single family dwelling are: a water closet, a bathroom sink, a bathtub or shower or both, and a kitchen sink. (More than one bathroom may be added to a dwelling provided the potential occupancy of the structure is not increased.)
- 3) When a failing onsite sewage disposal system already has more than the minimum facilities described above, the discharging system may be designed and permitted to accommodate the entire existing sewage flow. However, in no event shall the system designed and permitted exceed the existing sewage flow unless all conditions and criteria of 12 VAC5-640 are met.

Owners are requested to complete the form in Appendix C.

VDH staff will review the request and indicate approval yes/no on the same form.

Forwarding the Application to DEQ

Purpose: To provide DEQ with sufficient information to decide whether or not to issue a General Permit for the proposed discharge.

Individual Responsible: EHS

Procedure: A complete Combined Application with a VDH cover letter specifying the approval or denial of a discharge site, and a copy of the onsite system denial letter shall be mailed to the DEQ Regional Office.

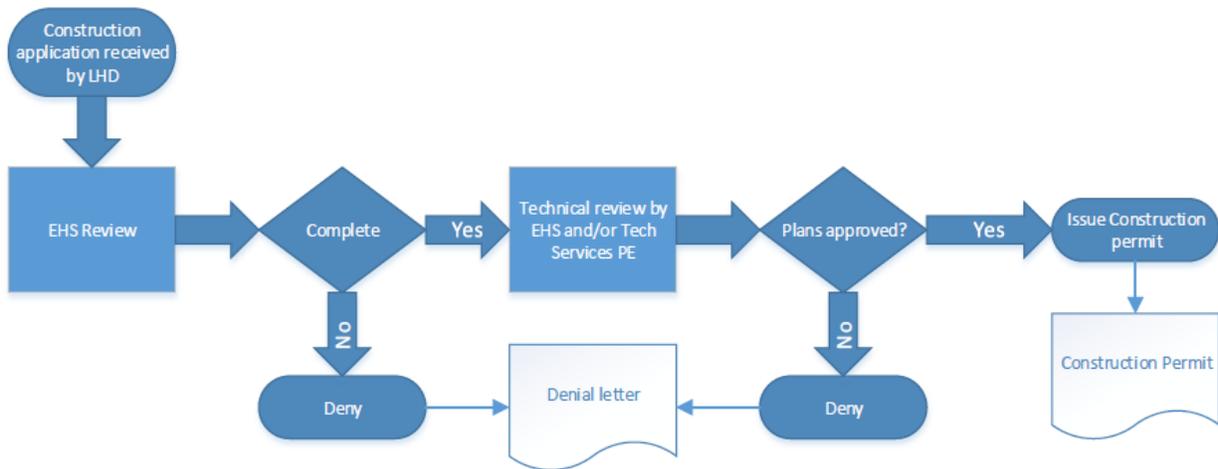
Level of Review: The EH Supervisor should review the package before mailing.

Time Frame: The Combined Application/onsite denial letter/cover letter approving or denying a discharge site should be forwarded to DEQ within one day of the completion of the site evaluation. The entire process beginning with the receipt of the Combined Application should take no longer than 15 business days.

Construction Permit Application and Receipt

Application Receipt

Purpose: To initiate the process of obtaining a permit to construct an Alternative Discharging Sewage Treatment System for a site with General Permit coverage by DEQ.



Individual Responsible: Clerical/OSS staff receives the completed application with PE plans and fee.

Procedure: Upon receipt of the application, OSS staff verifies that the appropriate fee is paid. Only applications which are completed and submitted with the appropriate fees are accepted. A completed construction permit application requires the submittal of the completed application form, a copy of the DEQ General Permit, formal system plans by a professional engineer licensed to work in the Commonwealth of Virginia*, waiver forms for repair of systems on non-compliant sites (when applicable), any system easement recordation documentation necessitated by the site location (when applicable), and a Virginia Water Protection Permit from DEQ, or, a permit under the U.S. Army Corps of Engineers (when applicable for wetland discharge points). Applications are then entered into the VENIS database.

**= An EHS may accept plans submitted electronically for review purposes if requested by the designer, but hard copies are likely to be required for permit issuance.*

Level of Review: EHS or EH Supervisor are available if there are any questions or concerns regarding the application for a Construction Permit.

Time frame: Submitted applications should be entered into VENIS and provided to the assigned EHS within 1 business day.

Review of Engineered Plans

Purpose: To ensure that submitted plans are adequate to allow for issuance of a construction permit.

Individual Responsible: EHS & Technical Services Engineer (TSE) if warranted.

Procedure: The assigned EHS reviews each plan submittal to ensure compliance with *Discharge Regulation*. See Appendix D for a review checklist. On a case by case basis, an EHS may request further review by OEHS Technical Services Engineers (TSE), especially for more complicated designs. When further review is requested, the EHS should forward a copy of the submitted plans along with the review checklist and any comments/concerns the EHS has regarding the design. In any event, if a denial is anticipated, the plans must be reviewed by a TSE and a denial recommendation provided to the EHS.

Note: If the discharge is to a wetland, the construction submittal must include documentation/delineation from the U. S. Army Corps of Engineers that the discharge point is a wetland. Also, the owner must provide documentation that a Virginia Water Protection Permit from DEQ or a permit under the U.S. Army Corps of Engineers has been obtained as needed.

Level of Review: EH Supervisor and/or TSE

Time Frame: All plans shall be reviewed so that the permit can be issued or denied within 21 calendar days of the application being received. Submittals which do not warrant TSE review should be reviewed so that a permit can be issued within 15 days of the application being received.

Issuance, Denial, Revocation, or Voidance of the Construction Permit

Purpose: To provide the applicant with their permit to construct the system, or, a denial letter documenting the reason(s) a permit could not be issued. The denial letter should inform applicants of their right to appeal. All denial letters must explain that a new application submittal will be accepted within 90 days without additional application fees. Processes/conditions for issuance, denial, revoking or voiding a construction permit are provided as follows.

Individual Responsible: EHS in consultation with EHS supervisor

Procedures:

A. Issuance: After completing a satisfactory formal plan review with entry of system design parameters into VENIS the EHS produces the permit print form to be mailed to the applicant with a courtesy copy mailed to the designer and to DEQ.

Note: A construction permit for a discharge system may be transferred according to 12 VAC5-640.220.E if the new owner (i) applies for the permit transfer on a form approved by the department, (ii) pays the applicable fee, (iii) provides change of ownership documentation in accordance with the *General Permit* and (iv) provides written certification that there are no new site conditions that will adversely impact the existing approved construction permit. The expiration date of the transferred permit shall not change. When the permit is transferred, it is re-issued to the new owner. See Appendix E for the appropriate form.

B. Denial: The construction permit shall be denied when the Department determines that (1) the proposed site does not comply with the *Discharge Regulations*; (2) the design of the system would preclude the safe and proper operation of a discharging system, (3) the installation and operation of the proposed system would create an actual or potential health hazard, or (4) the proposed design would adversely impact the environment. When a construction permit is denied, the owner shall be notified in writing, by certified mail, of the basis for the denial, and a copy shall be sent to the Department of Environmental Quality.

C. Revocation: After the owner is provided a notice and an opportunity to participate in an informal fact finding conference or consultation proceeding in accordance with 2.2-4019 Code of Virginia, and 12VAC5 -640-180, the commissioner may revoke a construction permit for any of the following reasons:

1. Failure to comply with the conditions of the permit including, but not limited to, the monitoring, operation, and maintenance requirements in Article 4, (12 VAC5-640-490-520), or the payment of the inspection fee.
2. Violation of any requirement of this chapter for which no variance has been issued.
3. Facts become known which reveal that an actual or potential health hazard has been or would be created, or that environmental resources may be adversely

- affected by allowing the proposed discharging system to be installed or operated;
or,
4. Failure to comply with the effluent limitations set forth by the SWCB in the General Permit as determined by the monitoring required by Article 4 of Part III.

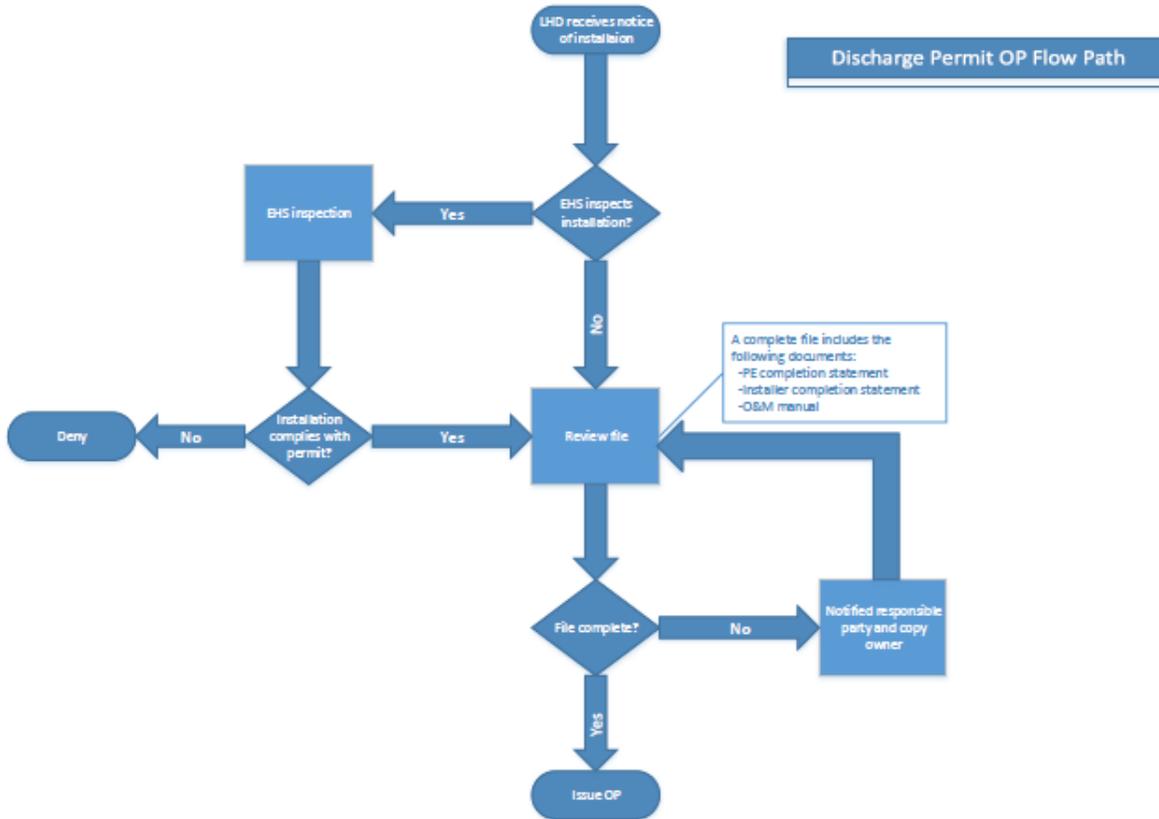
D. Voidance: After the owner is provided a notice and the opportunity to participate in an informal fact finding conference or consultation proceeding in accordance with 2.2-4019 of the Code of Virginia and 12 VAC5-640-180, the commissioner or the department may declare a construction permit null and void when any of the following conditions occur:

1. Conditions such as house location, well location, discharging system location, discharge point, discharge system design, topography, drainage ways, or other site conditions, i.e. property line modifications affecting discharge point setback requirements are changed from those shown on the application or site plan;
2. Conditions are changed from those shown on the construction permit.
3. More than 60 months elapse from the date the permit was issued, or;
4. The revocation or expiration of the General Permit or of the owner's approved registration by the SWCB.

Operation Permit

Action: Issuance, denial, renewal, revocation and voidance of an operation permit.

Purpose: To provide the applicant with a permit to operate the discharging system after the installation is determined to be in substantial compliance with the construction permit and the requirements of the *Discharge Regulations*.



Procedures:

Issuance, denial, renewal, revocation and voidance of an operation permit

A. Issuance: Issue the operation permit in VENIS if the following requirements have been met:

1. The completion statements from the contractor and designer have been submitted. A completion statement form is located in Appendix F. (The local Health Department, at its discretion, may perform a construction inspection to determine substantial compliance with the alternative discharging regulation. See Appendix F for a construction inspection checklist.)
2. As-built drawing has been submitted to the office. Any changes or deviation to the approved construction plan must be documented. When no changes have been made to the submitted plan, then as-builts will not be required.

3. The operation and maintenance manual has been submitted to the office and it contains the minimum items from 12VAC5-640-264.B.
 - a. Basic information relevant to the discharging system design including treatment unit capacities, pump operating conditions, a list of the components comprising the discharging system, a dimensioned site drawing, sampling locations, and contact information for replacement parts and chemicals for each unit process;
 - b. Safety considerations;
 - c. A list of all control functions and how to use them;
 - d. All operation, maintenance, sampling, and inspection schedules for the discharging system including any requirements that exceed the minimum requirements of this chapter;
 - e. The *General Permit* effluent sampling and reporting schedule;
 - f. The sampling location for each of the required *General Permit* parameters and for informal (process control) testing parameters;
 - g. The expected ranges of any recommended informal (process control) tests;
 - h. The limits of the discharging system and how to operate the system within those design limits; and
 - i. Other information deemed necessary or appropriate by the designer.

B. Denial: The operation permit shall be denied if the discharging system is not constructed in accordance with the construction permit or the owner has failed to provide the completion statements as required in 12VAC5-640-262 or the operation and maintenance manual required by 12VAC-640-264. The owner shall be notified in writing, by certified mail, of the basis for the denial, and a copy shall be sent to the Department of Environmental Quality.

C. Renewal: When automatic renewal of the *General Permit* occurs, the operation permit shall remain valid unless there are any of the following issues:

1. Failure to comply with the conditions of the permit including, but not limited to, the monitoring, operation, and maintenance requirements in Article 4, (12 VAC5-640-490 – 520), and the payment of the inspection fee.
2. Violation of any requirement of this chapter for which no variance has been issued.
3. Facts become known which reveal that an actual or potential health hazard has been, or would be created, or environmental resources may be adversely affected by allowing the proposed discharging system to be installed or operated.
4. Failure to comply with the effluent limitations set forth by the SWCB in the *General Permit* as determined by the monitoring required by Article 4 of Part III.

(Note: The operation permit is not transferable except as provided for in 12VAC5-640-220,E.,2,3.) The new owner must apply for the permit transfer on a form approved by the department, pay the applicable fee, and provide the department with change of ownership documentation in accordance with the *General Permit*. The expiration date of the transferred operation permit shall not change.

D. Revocation: After the owner is provided a notice and an opportunity to participate in an informal fact finding conference or consultation proceeding in accordance with 2.2-4019 Code of Virginia, and 12VAC5 -640-180, the commissioner may revoke an operation permit for any of the following reasons:

1. Failure to comply with the conditions of the permit including, but not limited to, the monitoring, operation, and maintenance requirements in Article 4, (12 VAC5-640-490-520), or the payment of the inspection fee.
2. Violation of any requirement of this chapter for which no variance has been issued.
3. Facts become known which reveal that an actual or potential health hazard has been or would be created, or that environmental resources may be adversely affected by allowing the proposed discharging system to be installed or operated; or,
4. Failure to comply with the effluent limitations set forth by the SWCB in the General Permit as determined by the monitoring required by Article 4 of Part III.

E. Voidance: After the owner is provided a notice and the opportunity to participate in an informal fact finding conference or consultation proceeding in accordance with 2.2-4019 of the Code of Virginia and 12 VAC5-640-180, the commissioner or the department may declare an operation permit null and void when any of the following conditions occur:

1. Conditions such as house location, well location, discharging system location, discharge point, discharge system design, topography, drainage ways, or other site conditions, i.e. property line modifications affecting discharge point setback requirements are changed from those shown on the application or site plan;
2. Conditions are changed from those shown on the construction permit.
3. More than 60 months elapse from the date the permit was issued, or;
4. The revocation or expiration of the General Permit or of the owner's approved registration by the SWCB.

Level of Review: Environmental Health Supervisor or Manager

Time Frame: Ninety percent of all operational permits should be issued within two work days and all operation permits should be issued within five work days.

Alternative Discharging Sewage Treatment Regulations for Single Family Home Dwellings 12VAC5-640

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- 380 Repealed
- 400 Classification of Discharge Points
- 420 Setback distances from discharge points and downstream channels for protection of public health
- 430 Performance requirements
- 434 Treatment unit and additional system component classifications
- 434 Reliability
- 440 Special factors affecting system design
- 450 Design criteria for the use of intermittent streams, dry ditches, or wetlands
- 460 Design requirements for system components
- 470 General construction requirements
- 480 Repealed
- 490 Monitoring
- 500 Operation and Monitoring Requirements
- 510 Information to be reported electronically
- 520 Failure to submit information

Forms:

- Combined Application
- Permit Transfer under 12VAC50640-220E
- Completion statement

Link to full text of regulation

[12VAC5-640](#)

The Discharging Option: Understanding the Risks Involved with a Surface Water Discharge

(Based on GMP 002)

For millions of Americans, an onsite sewage disposal system (or "septic tank system") serves as a satisfactory sewage disposal device. Properly installed on a suitable lot, an onsite system presents few public health problems. When an onsite sewage disposal option cannot be found because of limited soil permeability and/or a high level of water saturation, or other limiting conditions, an onsite system that discharges to surface water, such as a stream, may be a viable alternative. In this case, a treatment system is used to treat the sewage before discharging the treated sewage to a stream. This type of system bypasses the use of soil for treatment and relies solely on the installed chemical, physical, biological and mechanical treatment components.

When properly sited, designed, and functioning, a discharging system poses little risk to public health and the environment. Primary problems stem from the defective functioning of these systems and include the numerous health risks to humans caused by direct exposure to improperly treated sewage, and the great possibility of contamination of water supplies. It is critical that your system be properly operated and maintained to protect you and your family's health as well as your neighbors.

Discharging systems are generally comprised of settling tanks, a biological treatment system, disinfection, and post aeration. If anyone of these components is not functioning properly, the quality of the wastewater will degrade and the potential for human health risks increases. The risks occur when there is exposure to the untreated or partially treated sewage. If the discharge channel prior to the wastewater mixing with a stream is open, there is the risk of having partially treated human waste on the ground where exposure can occur. There is also the possibility that a malfunctioning system will cause the sewage to back up into plumbing fixtures and become present in a dwelling. Once this waste is exposed, the possibility of humans contracting any of a number of diseases from infectious agents in human excrement is greatly multiplied. This is particularly true of children, many of whom are unable to understand the dangers of raw sewage. These diseases may be contracted by humans through direct exposure to the untreated (or partially) treated waste or through contact with a number of creatures which may have been exposed to it, including dogs, cats, rats, flies, cockroaches, fleas and a host of others.

After exposure to improperly treated sewage, the diseases humans may possibly contract are myriad. Some of these diseases are addressed below in an attempt to illustrate the seriousness of exposure to improperly treated human sewage. This list should not be viewed as a comprehensive and complete listing of all health hazards that may result from an improperly functioning discharging system.

The following are diseases which can be related to exposure to improperly treated human waste. Included is a brief summary of each disease.

Appendix B

1. Salmonellosis - A bacterial disease commonly manifested by an acute enterocolitis, with sudden onset of headache, abdominal pain, diarrhea, nausea and sometimes vomiting. Dehydration may be severe, especially among infants. Deaths are ordinarily uncommon except in the case of the very young, the very old, or the debilitated. The disease is transmitted by eating food from infected food animals or food contaminated by the feces of an infected animal or person, or by drinking water contaminated by the feces of an infected animal or person.
2. Shigellosis - An acute bacterial disease involving the large and small intestines, characterized by diarrhea accompanied by fever, nausea and sometimes toxemia, vomiting, cramps and tenesmus. Convulsions may be an important complication in young children. The severity of illness and the possibility of death depend on the age and pre-existing nutritional state of the host, the size of the infecting dose and the serotype of the organism. The disease is transmitted by direct or indirect fecal-oral transmission from a patient or carrier. Infection may occur after the ingestion of very few organisms. Cockroach and fly- borne transmission may occur as the result of direct fecal contamination.
3. Cholera - An acute bacterial enteric disease with sudden onset, profuse watery stools, occasional vomiting, rapid dehydration, acidosis and circulatory collapse. Mild cases with only diarrhea are common, especially among children. Death may occur in severe, untreated cases within a few hours and the case fatality rate in such cases may exceed 50%. With proper treatment, the death rate is below 1%. The ways the disease may be transmitted include drinking water contaminated with feces of patients, or, to a lesser extent, feces of carriers, or eating food which has been contaminated by feces. Raw or undercooked seafood from polluted waters has been the cause of several cholera epidemics.
4. Viral hepatitis A - This is characterized by abrupt onset with fever, malaise, anorexia, nausea and abdominal discomfort, followed within a few days by jaundice. The effects vary from a mild illness lasting one to two weeks to a more rare, and severely disabling disease lasting several months. In general, severity increases with age, but complete recovery is the rule. The disease is transmitted person-to-person by the fecal-oral route. The infectious agent is found in feces, reaching peak levels the week or two before the onset of symptoms appear, concurrent with the appearance of circulating antibodies. The disease is most common among school-age children and young adults.
5. Sporadic viral gastroenteritis - Sporadic severe gastroenteritis in infants and young children is characterized by diarrhea and vomiting, often with severe dehydration and occasional deaths in the younger age groups. Milder forms of gastroenteritis can also occur. While the disease's mode of transmission is not exactly known, it is thought to probably be fecal-oral and possibly fecal-respiratory.

Appendix B

6. Epidemic viral gastroenteritis - A usually self-limited mild disease that often occurs in outbreaks with clinical symptoms of nausea, vomiting, diarrhea, abdominal pain, myalgia, headache, malaise, low-grade fever or a combination of these symptoms. Gastrointestinal symptoms characteristically last 24 to 48 hours. Again, it is believed that the transmission of the disease probably occurs by the fecal-oral route.
7. Amebiasis - This results from infection by a protozoan. Most infections are asymptomatic, but may become clinically important under certain circumstances. Intestinal disease varies from acute or fulminating dysentery with fever, chills, and bloody or mucoid diarrhea (amebic dysentery), to mild discomfort with diarrhea containing blood or mucous alternating with periods of constipation or remission. Epidemic outbreaks result mainly from ingestion, or fecally contaminated water containing amebic cysts. Epidemic spread is by hand-to-mouth transfer of feces.

As mentioned beforehand, the diseases addressed are hardly an encompassing list of all diseases which may result from the improper disposal of human feces. However, the list does cover a broad range of the types of diseases which may result from improper disposal. One characteristic that all of the above diseases have in common is that the sanitary disposal of human feces is a recommended preventive measure. Therefore, it is clear that taking the necessary measures to ensure that discharging systems function properly is of extreme importance.

The VDH regulations that govern these small discharging systems require you, the owner, to

- Keep your system functioning properly by having a licensed operator operate and maintain the system at least twice a year;
- Verify that your system is functioning properly by having the licensed operator sample the system in accordance with the General Permit and VDH regulation;
- Ensure the operator reports the results of each operator visit to VDH; and
- Have your system inspected by VDH annually and pay a \$75 fee for the inspection.

If you maintain your system in good working order, your discharging system will provide a safe and sanitary method of disposing of your sewage for years to come.

**APPLICATION FOR AN ALTERNATIVE DISCHARGING SEWAGE TREATMENT
SYSTEM FOR INDIVIDUAL SINGLE FAMILY DWELLING**

NOTICE TO APPLICANT

Our goal at the Health Department is to process your application as quickly as possible. Sometimes we take longer to process applications because of unpredictable fluctuations in our workload (such as a rabies emergency or a heavy application request period), some delays are unavoidable.

You will have to pay the required application fee for an Alternative Discharging Sewage Treatment System (discharging system). There is no fee for a repair application to repair an existing system and/or replace a malfunctioning on-site system. If you've already submitted a fee for an onsite permit that was denied, that fee may be applied to this new application.

A primary resident whose income of his/her family is at or below the Poverty Income Guidelines may apply for a variance to waive the application fee. This request must be made at the time of application. If you are applying for a fee waiver, please bring proof of your gross income when you return this application to the health department. If you have questions regarding what can be used as proof of income, the secretary at the health department will provide you with this information. Your fee may be refunded for an application denial for primary residential use only.

Applications for discharging systems will not be evaluated until all on-site sewage disposal system alternatives as described in 12VAC5-640-30.D. are first considered and denied or deemed not feasible.

Applications for discharging systems basically require a few steps.

1. You submit a completed Combined Application Form to the local health department. The local health department will evaluate the proposed site to determine if it meets the requirements of the VDH *Discharge Regulations**.
 - a. If an approvable site exists, VDH will forward the application to the Department of Environmental Quality (DEQ) with a recommendation for issuance of the General Permit.
 - b. If an approvable site does not exist, VDH will send you a letter outlining the specific reasons for denial
2. When DEQ receives a Combined Application from VDH, DEQ evaluates the application for compliance with its regulations and the receiving water for any specific requirements. If there are no restrictions on a discharge at that location, DEQ will issue General Permit to you with specific limits for the quality of wastewater to be discharged.
3. Once you've received your General Permit, you must retain the services of a Virginia licensed Professional Engineer to design your treatment system which will comply with both the DEQ and VDH design requirements. You will then submit an application for a construction permit to the local health department along with the plans and specifications for your system that your engineer has prepared and a copy of your DEQ General Permit.

Appendix C1

If the discharge is to a wetland, the construction submittal must include documentation that a Virginia Water Protection Permit from the Department of Environmental Quality or a permit under the U.S. Army Corps of Engineers has been obtained. If discharge system easements are necessary for your site, these must accompany the application package.

4. The local health department will then issue a construction permit to install the facility.

Due to the complexity and availability of treatment facilities, our office cannot recommend one manufacturer or professional engineer over another. The Code of Virginia does not exempt Discharging Systems from the Practice of Engineering. Therefore, engineered plans are required prior to issuance of a construction permit.

Discharging systems discharging improperly treated effluent can endanger public health and threaten environmental resources. You will be required to have your system operated, maintained, and monitored by a licensed wastewater or alternative onsite wastewater operator in accordance with the *Discharge Regulations* and the DEQ General Permit. Routine reporting is required. In addition, VDH will inspect your system annually and charge a \$75 inspection fee to you. If your system is in compliance for 3 years, the VDH inspection frequency may be reduced to once every 3 years.

Attached is a checklist and application to assist you with the combined application process to ensure completeness.

All items listed must be completed by you, the applicant, before the application will be accepted by the Health Department. You may also enlist the services of a professional engineer to complete the application. We understand that this process can be hard to understand and it is the department's policy to assist you in this process if desired, however, **we cannot recommend one manufacturer or consultant over another**. These are choices **you** will have to make. If you have any questions or need assistance with the application, please call the office number above for the county you are applying in.

* 12VAC5-640 Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings or '*Discharge Regulations*', effective December 16, 2015.

Appendix C1

Alternative Discharging Sewage Treatment
Application Checklist

- My application:
 - ___ has all items properly completed
 - ___ has a telephone number where I can be reached during the day
 - ___ has clear written directions to the property
 - ___ has the tax map I.D. #
 - ___ is signed and dated (all four locations)
 - ___ is accompanied by proper fee
- My site sketch on my survey plat clearly and accurately shows:
 - ___ the shape of the property
 - ___ the length of each property line
 - ___ the shape and location of the house (including decks and porches)
 - ___ the proposed location of the driveway
 - ___ the proposed or existing location of any utilities
 - ___ any legal easements located on the property
 - ___ the location of wells, cisterns within 500' and springs within 1,500' of proposed discharge point
 - ___ the location of public water intakes within one mile downstream
 - ___ the location of any other structures I plan to build in the future (e.g. barn, garage, swimming pool)
 - ___ the location of treatment facility and discharge point
- My building site for which the application is made:
 - ___ has the house site clearly and accurately marked
 - ___ has the brush removed to identify location of treatment facility and discharge point from surrounding water sources
 - ___ is easily identified from the road
 - ___ has any underground utilities marked
- Other required information prior to issuance of construction permit:
 - ___ PE plans (4 copies) (one copy may be electronic)
 - ___ Virginia Water Protection Permit from the Department of Environmental Quality or a permit under the U.S. Army Corps of Engineers if discharging to a wetland

I understand that the Health Department cannot accept incomplete applications and if the property corners are not clearly marked, the house site properly staked, brush cleared to evaluate the site, my application will be denied until I have taken corrective actions. I understand that I have 90 days to correct any deficiencies and submit a new application with no fees. Failure to do so within the prescribed time frame will require that I submit a new application with the associated fees.

Applicants Signature: _____

Date: _____

COMBINED APPLICATION

Virginia Department of Health Discharging System Application
For Single Family Dwellings Discharging Sewage Less Than or Equal To 1,000 Gallons per Day
and
State Water Control Board Virginia Pollutant Discharge Elimination System
General Permit Registration Statement For
Domestic Sewage Discharges Less Than or Equal to 1,000 Gallons Per Day

PART A. General Information

Types of Application: _____ New, _____ Repair, _____ Modification, _____ Expansion
_____ County or City Health Department Date: _____, 20____

Name of Facility/Residence: _____ Owner(s) of Facility/Residence: _____
Street Address _____ Street Address _____
City, State, Zip _____ City, State, Zip _____
Day Phone: _____ Cell: _____ Day Phone: _____ Cell: _____
Email Address: _____

Agent (if applicable): _____
Street Address _____
City, State, Zip _____
Day Phone: _____ Cell: _____

Tax Map#: _____ Subdivision: _____ Sect/Block: _____ Lot #: _____
Size of Parcel: _____ Acres. _____ Proposed Use (# of bedrooms): _____
Proposed volume of discharge (gallons per day): _____ gpd _____

If the discharge is to a wetland, attach the statement from the Army Corps of Engineers confirming the wetland delineation.

- | | YES | NO |
|--|-------|-------|
| 1. Are central sewage facilities available to this site/facility?
If yes, explain: _____ | _____ | _____ |
| 2. Does the residence/facility (existing or proposed) currently have an existing VPDES permit?
If yes, please provide the VPDES permit number: _____ | _____ | _____ |
| 3. Will any pollutants other than domestic sewage be treated or discharged?
If yes, please indicate what: _____ | _____ | _____ |
| 4. Is this application for a system to replace a failing septic system? | _____ | _____ |
| 5. Discharge permits can only be issued to sites with no onsite solution in accordance with 12VAC5-640
Attach a copy of the onsite sewage permit denial.
OSE/PE: _____ Date of Denial: _____ PE/OSE License #: _____ | | |

I hereby give permission to the Health Department to enter onto the above referenced property for the purpose of processing this application. I certify that the property lines and the proposed location of the treatment system, discharge point, proposed structures, water supplies, utilities, easements, are clearly marked and the property is sufficiently clear to see the topography.

Signature of Property Owner Date

PART B. Site Evaluation

	YES	NO	N/A
6. Will discharge be directly to a year-round, all-weather stream? If so Name of Proposed Receiving Stream: _____	_____	_____	_____
7. If discharge is to an intermittent stream or to a dry ditch, how far will discharge flow before leaving this property? _____ ft.			
8. If discharge is to an intermittent stream, a dry ditch, or a wetland, and discharge will flow less than 500 feet on this property, can an easement be obtained in accordance with 12 VAC 5-640-370?	_____	_____	_____
		YES	NO
9. If discharge is to an intermittent stream or to a dry ditch, is the slope \geq 1% for all of the fifty foot segments?		_____	_____
10. Is the average slope \geq 2%?		_____	_____
11. In the first 500 feet will the path of wastewater flow within 100 feet of any well or domestic water supply?		_____	_____
12. Are there any springs used for human consumption within 1500 feet downstream, or 100 feet upstream of the discharge point?		_____	_____
13. Is there any public water supply intake within one mile downstream of the proposed discharge point?		_____	_____
14. Are there any public swimming areas designated for public use or prohibited discharge areas within one mile downstream from the proposed discharge point?		_____	_____
15. Is the receiving stream classified as, or does it discharge to, shellfish waters?		_____	_____
16. Are there any other existing or proposed VPDES discharges within 500 feet of this proposed discharge point along the flow path?		_____	_____
17. Will any part of the proposed treatment system (excluding the discharge pipe and any aeration steps) be located within the 100 year flood plain?		_____	_____
18. Will any part of the proposed treatment system (excluding the discharge pipe and any aeration steps) be located in a topographically low, wet, or swampy area?		_____	_____
19. Will the building served by this system be used intermittently, or be subject to frequent electrical power interruptions?		_____	_____
20. Provide verification that this proposed activity is consistent with all local ordinances adopted pursuant to Title 15.2 of the Code of Virginia including wetlands.		_____	_____
21. How will the discharge be disinfected? Circle one: Chlorine; Ultraviolet radiation; Other _____			

PART C. Site Sketch

PLEASE ATTACH A SITE SKETCH TO THIS APPLICATION SHOWING:

- 1) A survey plat with topographic contour, and the location of existing structures, easements, utilities, water supplies, and springs should be provided by the owner. Other information referenced in this application is to be plotted on the survey plat.
- 2) Directions to and boundaries of the property.
- 3) The specific location of the property including the county tax map number (where available), a copy of the United States Geological Survey 7.5 minute topographic map showing the discharge point and downstream for five miles.
- 4) The location and distance to any existing or proposed buildings, wells, sewage treatment systems, VPDES discharges, water sources, water lines, easements, or utilities within 600 feet of any part of the proposed sewage disposal system. Indicate the discharge point, property boundaries, limestone outcrops and wells within 500 feet.
- 5) The important topographic features of the site (drainways, sinkholes, ponds, lakes, streams) including the limits of the 100-year flood plain.
- 6) The path of wastewater flow to the receiving year-round stream.
- 7) A diagram of the existing or proposed sewage treatment system, including the location of the residence/facility and the individual sewage treatment units.
- 8) The elevation of the discharge point and the elevation and slope every 50 feet for 500 feet downstream along the discharge path. Also include the slope of the channel sides every 50 feet for 500 feet downstream along the discharge path.
- 9) The latitude and longitude of the proposed discharge point in degrees, minutes, and seconds.

Certification:

To the best of my knowledge the information provided on the site sketch and the site evaluation are accurate.

Site Summary: Discharge Point Type: _____
Easement Required? _____

Site Evaluation and Site Sketch prepared by: _____ Date: _____

VDH Site Evaluation Concurrence by: _____ Date: _____

PART C. Permissions

As the applicant for a construction permit on the above referenced property, I certify that, to the best of my knowledge, the above information and the attached site sketch and topographic map are true, correct, and complete. I understand that if the department finds a satisfactory site in response to this application that I will be required to submit construction permit application and plans and specifications for the treatment system prepared by an engineer and, certified copies of any necessary easements

Signature of Applicant

Date

As the applicant for an alternative discharging system construction and operations permit on the above referenced property, I hereby give permission to the Health Department, or their authorized agent, to enter onto the above referenced property for the purpose of inspecting the construction of and monitoring the operation and quality of effluent from my sewage treatment plant.

Signature of Applicant

Date

Department of Environmental Quality Certification

I hereby grant to duly authorized agents of the Department of Environmental Quality, upon presentation of credentials, permission to enter the property where the treatment works is located for the purpose of determining compliance with or the suitability of coverage under the General Permit. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Signature of Applicant

Date

PART D. CERTIFICATION

I understand that I am responsible for contracting with a licensed operator to conduct all operation, maintenance, monitoring, and reporting for this permitted wastewater treatment system in accordance with 12VAC5-640. I certify that this system will be maintained by a licensed operator in accordance with 12VAC5-640.

Signature of Applicant

Date

Appendix C3

REQUEST FOR ISSUANCE OF WAIVER FROM DESIGN CRITERIA

I certify that the following statements are applicable to my lot:

1. The site has been rejected for an onsite repair solution.
2. Public sewer is not available to repair the failing onsite system.
3. There is not a suitable site available that fully complies with the requirements of 12VAC5-640-400, 420, 470H and 450.
4. There is no proposed increase in waste load except as noted in 12VAC5-640-260
5. The design will reduce an existing health hazard, or, will improve or negate environmental impacts associated with the existing discharge.

Attach the specific regulatory design waiver requested and the proposed mitigating actions that minimize health hazards associated with installation of a noncompliant wastewater system. (Applicant/owner is advised to seek advice of a licensed designer before completing this section of form.)

As owner of the proposed system, I agree to comply with all of the design conditions set forth in 12VAC5-640-260, have provided justification for issuance of a waiver, and have included complete documentation providing the mitigating actions to be used to eliminate and/or minimize public health impacts of the proposed discharge system. I understand that design of this system will (or may) require submittal of design plans, and installation of a system requiring a higher reliability status than what is normally required for those systems that fully meet the requirements of 12VAC5-640, and agree to comply with the additional maintenance/monitoring/operation conditions of the required design.

Owner name-(Please print)_____

Date:_____

Owner signature-_____

Waiver Request Approved?: ____ Yes ____ No

VDH Staff name: (please print):_____

VDH Staff signature:_____

Date:_____

Provide justification for decision:_____

APPENDIX C4: SITE EVALUATION FORM FOR DISCHARGING SYSTEMS

OWNER/APPLICANT: _____

DATE: _____

EVALUATOR: _____

TAX MAP/GPIN: _____

		YES	NO	N/A
1.	Will discharge be directly to a year-round, all-weather stream? If so Name of Proposed Receiving Stream: _____	_____	_____	_____
2.	If discharge is to an intermittent stream or to a dry ditch, how far will discharge flow before leaving this property? _____ ft.			
3.	If discharge is to an intermittent stream, a dry ditch, or a wetland, and discharge will flow less than 500 feet on this property, can an easement be obtained in accordance with 12 VAC 5-640-370? _____	YES	NO	N/A
4.	If discharge is to an intermittent stream or to a dry ditch, is the slope \geq 1% for all of the fifty foot segments? _____		YES	NO
5.	Is the average slope \geq 2%? _____		_____	_____
6.	In the first 500 feet, will the path of wastewater flow within 100 feet of any well or domestic water supply? _____		_____	_____
7.	Are there any springs used for human consumption within 1500 feet downstream, or 100 feet upstream of the discharge point? _____		_____	_____
8.	Is there any public water supply intake within one mile downstream of the proposed discharge point? _____		_____	_____
9.	Are there any public swimming areas designated for public use or prohibited discharge areas within one mile downstream from the proposed discharge point? _____		_____	_____
10.	Is the receiving stream classified as, or does it discharge to, shellfish waters? _____		_____	_____
11.	Are there any other existing or proposed VPDES discharges within 500 feet of this proposed discharge point along the flow path? _____		_____	_____
12.	Will any part of the proposed treatment system (excluding the discharge pipe and any aeration steps) be located within the 100 year flood plain? _____		_____	_____
13.	Will any part of the proposed treatment system (excluding the discharge pipe and any aeration steps) be located in a topographically low, wet, or swampy area? _____		_____	_____
14.	Will the building served by this system be used intermittently, or be subject to frequent electrical power interruptions? _____		_____	_____
15.	Provide verification that this proposed activity is consistent with all local ordinances adopted pursuant to Title 15.2 of the Code of Virginia including wetlands. _____		_____	_____

16. How will the discharge be disinfected? Circle one: Chlorine; Ultraviolet radiation;
Other _____

Appendix C5

Date

DEQ Regional Contact
DEQ Address
DEQ town, VA Zip

RE: Property Id

Dear DEQ Regional Contact:

This letter is to confirm that VDH has been unable to locate an onsite sewage disposal system for <Applicant> on the above referenced property that meets the regulatory requirements under 12VAC5-640-30.D. The Department/Consultant reviewed <X> potential sites on the property. A copy of the Department/Consultant's report and findings is on file with the <Local> Health Department. The lot review considered conventional and alternative onsite sewage systems within the limits of 12VAC5-640-30.D. Furthermore, public sewerage system facilities are not available to this property.

A suitable site has been identified for a stream/dry ditch/intermittent stream/wetland type discharge point. A copy of the completed Combined Application is enclosed. VDH has no objections to the issuance of coverage under the General Permit 9VAC25-110 for <Applicant>.

Sincerely,

Environmental Health Specialist Sr.

Appendix C6

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

<owner's name>
<Owner's address>
<city, state, zip>

RE: Tax Map <Certified Mail ID number>
Property Address
Health Department ID

Dear <Owner>:

Based on conditions documented during the <date> site investigation at the referenced property, your Combined Application for a General Permit for a Discharging Sewage Treatment System cannot be processed at this time as <reference the requirements of the *Discharge Regulations*.>.<Describe the current status of the property (undeveloped, failing on-site disposal system,etc.) and cite regulations that prohibit issuance.>

Should you have facts relating to your site that you wish to share with the Department or you disagree with the site evaluation, you have 30 days from the date of this letter to request an informal fact-finding conference (IFFC) before the engineering design review panel pursuant to Virginia Code § 32.1-163.6.E to review this site evaluation. If the Virginia Department of Health (the Department) re-affirms the site evaluation following review by the engineering design review panel, you may appeal that decision in accordance with Va. Code Section 32.1-163.6.F (when the Department denies an application following review by the engineering design review panel, the owner may appeal that decision in accordance with Va. Code Section 32.1-164.1.).

Your may also appeal the site evaluation determination pursuant to Va. Code Section 32.1-164.1 and 12VAC5-610-230 of the SHDR You are not required to seek review by the engineering design review panel prior to appealing a determination pursuant to Va. Code Section 32.1-164.1 and 12VAC5-610-230 of the SHDR. As with the first option and in accordance with 12VAC5-610-230.D, the 30 day timeframe for appealing the site evaluation denial is measured from the date of this letter. An appeal requested pursuant to the SHDR will be conducted according to the Virginia Administrative Process Act (2.2-4000 et seq.).

To request an IFFC before the engineering design appeal review panel pursuant to 32.1-163.6.E, or to appeal the site determination in accordance with Va. Code Section 32.1-164.1 and 12VAC5-610-230 of the Regulations, submit a written request to <Health Director, local health department address> **within 30 days of the date of this letter.**

Sincerely,

Environmental Health Specialist Sr.

<OfficeName>
<OfficeAddress>
<OfficeCity>, <OfficeState> <OfficeZip>
<OfficePhone> Voice
<OfficeFax> Fax

Alternative Discharging Sewage Treatment System Construction Permit Letter

< Date>

<OwnerContactFirst> <OwnerContactLast>

<OwnerMailingAddress>

<OwnerMailingCity>, <OwnerMailingProvince> <OwnerMailingPostalCode>

RE: <PhysicalBuilding> <PhysicalStreet> <PhysicalCity> <PhysicalMunicipality>

<PhysicalProvince> <PhysicalPostalCode>

Tax Map/GPIN: <LegalDescriptionTaxID> <LegalDescriptionGPIN>

HDID: <HDeptId>

DEQ General Permit number:

System Capacity: Residential, <SewageResidentialBedrooms> Bedrooms,

<SewageRequestedDailyFlow> gallons per day

Approval Status: Generally Approved or Non-Generally Approved

Type of Discharge Point: i.e. wetland, all weather stream, intermittent stream, or dry ditch

Dear <OwnerContactFirst> <OwnerContactLast> :

This letter and the attached drawings, specifications, and calculations dated <SewageDesignPlansDate>, constitute your permit to install an alternative discharging sewage treatment system on the property referenced above. Your application for a permit was submitted pursuant to §32.1 of the Code of Virginia, which authorizes the Health Department to supervise and regulate the construction, location, and operation of alternative discharging sewage treatment systems with flows less than or equal to 1,000 gallons per day for single family dwellings. VDH conducted the site evaluation or reviewed the site evaluation conducted by a licensed professional engineer, reviewed construction plans, and verified issuance of a General Permit from the Department of Environmental Quality prior to the issuance of this permit.

VDH hereby recognizes that the design submitted by <DesignedbyName>, PE complies with the requirements of the *Code of Virginia* and the *Alternative Discharging Sewage Treatment Regulations for Single Family Home Dwellings* and grants permission to install the system as designed and shown on the attached plans and specifications. This construction permit is null and void if any substantial physical change in the site conditions occurs where the alternative discharging sewage treatment system is to be located.

If modifications or revisions are necessary between now and when you construct your dwelling, please contact the PE who produced the design on which this permit is based. The PE is authorized to make minor adjustments in the location or design of the system at the time of construction provided adequate documentation in the form of a dimensioned site sketch is included in the system operation and maintenance manual provided to the <OfficeName>.

Appendix D3

Tax Map/GPIN: <LegalDescriptionTaxID>
<LegalDescriptionGPIN>
HDID: <HDeptId>

Page 2 of 3

The PE that submitted the certified design for this permit is required to conduct a final inspection of this alternative discharging sewage treatment system when it is installed and to submit an inspection report and completion statement. If your PE did not submit an Operation and Maintenance Manual with the plan package, then (s)he will be required to do so prior to issuance of an Operation Permit. The alternative discharging sewage treatment system may not be placed into operation, except for testing, until you have obtained an Operation Permit from the <OfficeName>.

VDH may revoke or modify any permit if, at a later date, it finds that the conditions and/or design do not substantially comply with the *Alternative Discharging Sewage Treatment Regulations for Single Family Home Dwellings*, 12 VAC 5-640-5 et seq., or if the system would threaten public health or the environment.

This permit approval has been issued in accordance with applicable regulations based on the information and materials provided at the time of application. There may be other local, state, or federal laws or regulations that apply to the proposed construction of this alternative discharging sewage treatment system. The owner is responsible at all times for complying with all applicable local, state, and federal laws and regulations. If you have any questions, please contact me.

This permit expires: <GeneralPermitExpirationDate>. This permit is not transferable to another owner or location except in accordance with 12 VAC 5-640-220.E.

Sincerely,

<EHO>
<EHOPosition>
<OfficeName>

CC: <DesignedbyName> , PE

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WHAT YOU WILL NEED TO GET YOUR ALTERNATIVE DISCHARGING SEWAGE TREATMENT SYSTEM OPERATION PERMIT

Your system must have a **satisfactory inspection** at the time of installation. This will be completed by the designer of your permitted system. Your PE must submit a copy of the inspection results, complete with an as-built diagram documenting any changes, to the Health Department.

Please ensure that your contractor and designer provides a **Completion Statement** to the local Health Department after installation.

Please submit an operation and maintenance (O&M) manual for the discharging system.

EHS- PLEASE EDIT THIS LIST BEFORE PRINTING AND MAKE SURE ALL REQUIRED ITEMS ARE LISTED. THIS RED PARAGRAPH WILL NOT SHOW UP WHEN YOU PRINT THIS, SO YOU DON'T HAVE TO DELETE IT.

Allow 5 business days after the last piece of documentation is received for the Operation Permit to be issued. To avoid delays, clearly label each piece of documentation with the property Tax Map/GPIN number and HDID number shown above and on your construction permit. *Please note that due to the individual circumstances of your permit there may be additional required items not covered by this checklist.*

If you have any questions about any of the items on this list, please do not hesitate to contact the <OfficeName> at <OfficePhone>.

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CERTIFIED MAIL – RETURN RECEIPT REQUESTED

<owner's name>
<Owner's address>
<city, state, zip>

RE: Tax Map
Property Address
Health Department ID

Dear <Owner>:

Your application for a Discharging System Construction Permit filed on <date> with the <Name> Health Department was evaluated against the requirements contained in the *Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings* (12VAC5-640 et seq.; the Discharge Regulations), the *Sewage Handling and Disposal Regulations* (12VAC5-610 et seq.; the SHDR), and if applicable, Code of Virginia, Section 32.1-163.6 (Professional engineering of onsite treatment works).

Based on the information filed with your application and review by a Virginia Department of Health Technical Services engineer, your application for a Discharging System Construction Permit for the above referenced location is denied. The reasons for denial are:

<insert reasons for denial – cite regulatory reference and a plain language explanation of the requirement>

Should you have facts relating to your submittal that you wish to share with the Department or you disagree with the denial, you have 30 days from receipt of this letter to request an informal fact-finding conference (IFFC), pursuant to 12VAC5-640-210 of the Discharge Regulations, 12VAC5-610-230 of the SHDR, and Virginia Code Section 32.1-164.1. You may also appeal the permit denial within 30 days of receipt to the engineering design review panel, as contemplated by Virginia Code § 32.1-163.6.E. If you submitted a discharging system construction permit application supported by a professional engineer's (PE) design justification and project evaluation, this panel may review your application and supporting documentation provided by your PE.

You are not required to seek review by the engineering design review panel prior to appealing this permit denial pursuant to Virginia Code Section 32.1-164.1 and 12VAC5-610-230 of the SHDR. An appeal requested pursuant to the SHDR will be conducted according to the Virginia Administrative Process Act (2.2-4000 et seq.)

To request an IFFC in accordance with Va. Code Section 32.1-164.1 and 12VAC5-610-

Appendix D5

230 of the Regulations, or before the engineering design appeal review panel pursuant to 32.1-163.6.E, if applicable, submit a written request to <Health Director, local health department address> **within 30 days of receipt of this letter**. Bear in mind should you choose not to attend a scheduled IFFC without good cause, a case decision as contemplated by Code of Virginia § 2.2-4020.2 (Default) with respect to your permit application may be issued.

When denied for any reason, you may re-apply without a state fee within 90 days, including any change up to, and including, a new site. After 90 days from the date you receive this letter, a new application fee will be required. Please be sure any new application is complete and correct to avoid a second denial.

If you have any questions, or if this office may be of further service, please contact us. We are happy to assist you in processing any further information you may have or in providing further details on the appeals process.

Sincerely,

Environmental Health Specialist

PERMIT TRANSFER UNDER 12 VAC 5-640-220.E

Commonwealth of Virginia
Virginia Department of Health

_____ Health Department

General Permit Number VAG _____

Name of New Owner: _____

Signature of New Owner: _____

Address New Owner: _____

New Owner Phone Number: _____

Discharging System Address: _____

Certification Statement:

I understand that I am responsible for contracting with a licensed operator to conduct all operation, maintenance, monitoring, and reporting for this permitted wastewater treatment system in accordance with 12VAC5-640. I certify that this system will be maintained by a licensed operator in accordance with 12VAC5-640.

New Owner Signature

Date

Request for Transfer of Construction Permit:

- Attach:
1. Documentation of Transfer of Ownership of VPDES Permit from Department of Environmental Quality
 2. Written certification that there are no new site conditions that will adversely impact the existing approved construction permit and documents or the original construction application.

Request for Transfer of Operation Permit:

Attach: Documentation of Transfer of Ownership of VPDES Permit from Department of Environmental Quality

COMPLETION STATEMENT

Commonwealth of Virginia
Virginia Department of Health

_____ Health Department

Health Department ID #: _____

Name of Contractor / Engineer: _____
(company, corporation, individual)

Address: _____

Phone #: _____

Owner's Name: _____

Owner's Address: _____

Location of Installation: Lot _____ Block _____ Section _____

Subdivision: _____

Other: _____

I hereby certify that the discharging sewage treatment system has been installed and constructed in accordance with the construction permit issued on _____ and the approved plans and specifications, if any, upon which that permit issuance was based, and is in compliance with Alternative Discharging Sewage Treatment System Regulations for Individual Single Family Dwellings and, further, that the system complies with all applicable state and local regulations, ordinances and laws.

Signature

Date

Title _____

Contractor's /PE's License # _____

DISCHARGE SYSTEM INSTALLATION INSPECTION

HEALTH DEPT. ID #: _____

TAX MAP #: _____

OWNER'S NAME: _____

911 ADDRESS: _____

HEALTH DEPT. INSPECTION- _____(Date)

RESULT OF INSPECTION- _____ (Satisfactory/Unsatisfactory/Corrections needed)

Comments- _____

A) LOCATION OF TREATMENT UNIT- DISCHARGE LINE (adequate setback requirements met)

_____ (Yes/No)

Comments- _____

B) PUMP CONTROL PANEL-

1) Within 15' of treatment unit- _____(Yes/No/NA)

2) Manual override switch provided- _____ Yes/No/NA)

C) AUDIO/VISUAL ALARM PROVIDED- _____(Yes/No/NA)

1) On separate circuit from pump- _____(Yes/No/NA)

2) Located in an inhabited portion of residence- _____(Yes/No/NA)

3) Alarm designed to detect aerator failure- _____(Yes/No/NA)

4) Alarm detects high water levels- _____(Yes/No/NA)

D) POST AERATION DEVICE USED- _____(Yes/No)

E) SIGN POSTED WITHIN 3' OF DISCHARGE POINT WITH LETTERING 1" (min.) HIGH AND PLAINLY VISIBLE AT A DISTANCE OF 25'- (Sign must read "This pipe carries treated sewage effluent and is not suitable for human consumption. This system is owned by [full name of owner] and is maintained by [name and phone number of maintenance provider].")- _____(Yes/No)

CONTRACTOR COMPLETION STATEMENT RECEIVED- _____(Date)

ENGINEER'S COMPLETION STATEMENT or LETTER- _____(Date)

OPERATOR IDENTIFIED- _____(Name)

All requirements met for Operation Permit to be issued- _____(Yes/No)

Environmental Health Specialist- _____(Date)

<OfficeName>
<OfficeAddress>
<OfficeCity>, <OfficeProvince>
<OfficePostalCode>
<OfficePhone> Voice
<OfficeFax> Fax

Sewage Disposal System Operation Permit
Health Department ID Number: <HDeptID>

Tax Map No.: <LegalDescriptionTaxID>

Owner: <OwnerName>
<OwnerMailingAddress>
<OwnerMailingCity>,
<OwnerMailingProvince>
<OwnerMailingPostalCode>

The Above is Hereby Granted Permission to Operate
A single family residential < **Alternative Discharging** > Sewage Treatment System with
a (General/Non-General) Approval Status
at: <PhysicalBuilding> <PhysicalStreet> <PhysicalSuite>
<PhysicalCity>, <PhysicalProvince> <PhysicalPostalCode>

Design Capacity for this system is: <SewageDesignPeakFlow> gallons per day
<SewageResidentialBedrooms> Bedrooms

This Permit is Issued in Accordance with the Provisions of Title 32.1, Chapter 6 of the
Code of Virginia as Amended and

- Section(s) 220 and 266 of the *Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings* of the Virginia Department of Health.
- Sewage Disposal System Construction Permit HDID # <HDeptID>.
- With the understanding that it is the owner's responsibility to operate, maintain, monitor, sample, and report on the Sewage Treatment Works in accordance with the Monitoring, Operation, & Maintenance Requirements (Section(s) 490 through 520) of the *Alternative Discharging Sewage Treatment Regulations for Individual Single Family Dwellings* of the Virginia Department of Health.
- Discharges in excess of the limits established by the General Permit now or in the future, may cause the department to mandate the repair, expansion, or replacement of the discharging system.
- The issuance of an Operation Permit does not denote or imply any warranty or guarantee by the department that the discharging system will function for any specified period of time.
- Operation Permits are not transferable from one person to another except in accordance with 12VAC5-640-220.E.
- Operation permits shall be valid for a period of time not longer than the General

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Permit. If the General Permit is renewed, the Operation Permit will automatically renew when the requirements of 12VAC5-640-220.D are met.

<OperationPermitIssuedDate

<EHO>

[≥]
Effective Date

<EHOPosition>

Approved

Appendix F4

<OfficeName>
<OfficeAddress>
<OfficeCity>, <OfficeProvince> <OfficePostalCode>
<OfficePhone> Voice
<OfficeFax> Fax

< Date>

<OwnerName>
<OwnerMailingAddress>
<OwnerMailingCity>, <OwnerMailingProvince> <OwnerMailingPostalCode>

Subject: **Alternative Discharging Sewage Treatment System Startup Testing**
Health Department ID Number: <HDeptId>
Approval Status: Generally Approved or Non-Generally Approved
Tax Map Number: <LegalDescriptionTaxID>

Dear <OwnerContactFirst> <?#OwnerContactLast?OwnerName?OwnerContactLast>:

This is a reminder of the required startup testing for your Alternative Discharging Sewage Treatment System (Discharging System) located at <FacilityLocationAddress> <PhysicalCity>, <PhysicalProvince> <PhysicalPostalCode>. The Owner is responsible for assuring the Discharging System is operated and maintained by an Operator. The Owner is also responsible for having an Operator visit the Discharging System at the frequency required and providing an Operator to collect any samples required.

All new discharging systems shall undergo formal startup compliance testing for parameters limited by the General Permit. The collection, storage, transportation, and analysis of all formal compliance samples shall be in accordance with the requirements of the General Permit.

12VAC5-640-490.C.2.a. states that, "For generally approved systems, the first formal compliance testing event shall occur 45 to 90 days after the system begins discharging. If the formal compliance test data indicate the system is in compliance with the General Permit, the the system will revert to annual formal compliance sampling in accordance with the General Permit. The initial sample may be used to comply with the first annual sampling requirement. If the testing data indicates that any parameter is out of compliance, subsection E of this section shall apply."

12VAC5-640-490.C.2.b. states that, "For non-generally approved systems, the first formal compliance testing event shall occur 45 to 90 days after the system begins discharging. Three additional formal compliance testing events are to occur quarterly and at least 60 days apart. If the four startup compliance test data indicate the system is in compliance with the General Permit, then the system will revert to annual formal compliance sampling in accordance with

Appendix F4

the General Permit. If the testing data indicates that any parameter is out of compliance, subsection E of this section shall apply."

12VAC5-640-490.C.3. states that, "Informal (process control) testing shall be conducted monthly for at least six consecutive months beginning the second full month after the issuance of the operation permit. After successful startup of the treatment system, informal testing shall be conducted semiannually at a minimum and any time formal compliance testing is conducted. Informal testing shall be in accordance with the approved operation and maintenance manual, which shall include at a minimum the tests listed in Table 3.3. The specific test, sample location, and frequency shall be itemized in the operation and maintenance manual for the treatment system."

12VAC5-640-490.E. The department may require additional formal compliance testing or informal testing, or both, as necessary to protect public health and the environment. Additional testing shall be based on observed problems and shall not be implemented routinely on all discharging systems.

1. Anytime a discharging system is found to be out of compliance with the effluent limitations of the General Permit, follow-up formal compliance testing shall be repeated between 45 and 90 days after the original samples were collected and the results reported to the local health department. Prior to re-sampling, the operator should attempt to determine the reason for the noncompliance and take corrective actions.
2. Anytime an informal test reveals a potential problem, additional formal or informal testing may be conducted to review the effectiveness of any repairs or adjustments.
3. Anytime the results of two consecutive formal compliance tests as specified in subdivision C 2 or D 1 of this section result in a violation of the effluent limitations of the General Permit, informal testing shall revert to monthly frequency until satisfactory results are obtained for six consecutive months. Nothing in this section shall preclude requiring the collection of samples for formal compliance testing as described in subdivisions C 2 and D 1 of this section to determine compliance with the effluent limitations set forth in the General Permit.

A list of licensed operators can be obtained by visiting

<http://www.vdh.virginia.gov/EnvironmentalHealth/Onsite/ServiceProviders/>.

Please contact the <OfficeName> at <OfficePhone> if you have any questions regarding this letter or the approval status of your system. Thank you for your anticipated actions to ensure your Discharging System is functioning properly and fully complies with the regulations that protect public health and the environment.

Sincerely,

<EHO>, <EHOPosition>

Appendix F4

Attachment: Table 3.3 INFORMAL (PROCESS CONTROL) TESTING

Table 3.3 INFORMAL (PROCESS CONTROL) TESTING

Treatment Unit	Informal Tests
Septic tank/trash tank	Sludge depth
Suspended growth biological treatment unit	Dissolved oxygen, settleability, pH, odor
Fixed film biological treatment unit	Dissolved oxygen (effluent from unit), pH, odor
Chlorine disinfection/dechlorination	TRC at end of contact tank (>1.0 mg/l), TRC after dechlorination
Ultraviolet disinfection [UV]	Turbidity prior to UV
Final effluent	Dissolved oxygen, pH, odor, color

Amendments to the Alternative Discharging Sewage Treatment Regulations for Individual Single Family Home Dwellings (Discharging Regulations) 12VAC5-640
Effective December 16, 2015

The Virginia Department of Health convened a technical advisory committee and held four meetings between June 10, 2011 and July 27, 2011 to seek stakeholder input for the proposed regulations. The resulting amended regulations include:

- Modifications to the ‘no onsite sewage disposal option available’ criteria to include an evaluation for the use of treated effluent.
- Updated administrative procedures.
- The addition of an expiration date for the construction permit and allowing for transfer of ownership of a construction or operation permit.
- Modified the application process to clarify the interaction between VDH and DEQ and simplify the process.
- A requirement for an operation and maintenance manual for each system.
- An allowance for the use of wetlands as a receiving water.
- Redefined treatment system categories to align them with current Agency policies and other regulations.
- Elimination of the prohibition of discharges for sites with intermittent use.
- Expanded and updated design requirements for system component, especially for disinfection.
- Reduced routine testing requirements.
- Electronic reporting of formal testing and inspections.
- Eliminated submittal of ‘formal’ maintenance contracts with operators
- An allowance for licensed Alternative Onsite Sewage System Operators and Class I-III Wastewater Works Operators in addition to the already allowed Class IV Wastewater Works Operator to operate and maintain these systems.

The complete text of the amended regulation can be found at [12VAC5-640](#)

The following summarizes the main changes to the *Discharge Regulations*.

- § 30.D - Expands the onsite options that must be evaluated and found unsatisfactory before a discharge is considered. This includes use of treated effluent under the AOSS regulations
- § 220 - Increases the length of time that a construction permit is valid and allows for a one time renewal for 18 months under limited circumstances
- Modifies the application process in an effort to simplify it. Once the combined application is submitted to DEQ and General Permit is issued, a VDH Construction Permit Application for a discharging system is now required with fee and plans.
 - Combined Application process - § 230;
 - Site sketch, survey plat, plat waiver, easements, etc. are the same as with onsite and obtained during this process. VDH & DEQ does not want General Permits issued unless the applicant can install the system.
 - VDH will forward Combined Application with supporting documentation (i.e cover letter, copy of onsite denial, easements, etc.) to DEQ.
 - Construction Permit Application process - § 240 & § 250

○ Process such as timelines, plat waivers, refunds, etc. is the same as onsite.

- § 220.E - Allows for the transfer of a Construction and Operation Permit. The new owner shall pay application fee and provide a change of ownership form
- § 260 - Expands exceptions for waivers for failing onsite sewage disposal systems
 - Owner must file written request for waivers.
- Requires an Operation & Maintenance Manual, Completion Statements, and As Built Drawing to be submitted to VDH prior to issuance of the Operation Permit - § 264 & § 266
 - Completion statements signed by contractor and engineer. (form provided)
 - This can be submitted after the construction inspection.
 - If plat waiver applied for, the owner shall submit Verification of Sewage System Location (Form 12) in GMP 2015-01
- § 400 - Classifications of discharge points
 - Removes maximum slope of 30% for intermittent stream and dry ditches. Requires designer to protect from erosion as needed.
 - Allows naturally occurring swales and drainways to be extended with an engineered channel on a case-by-case basis but must tie into the existing natural swale or drainage.
 - Requires wetland delineation by the U.S. Army Corps of Engineers when the proposed discharge is to a wetland
- § 420 - Changes to setback distances to reflect consistency with Sewage Handling and Disposal Regulations (SHDR)
 - Wastewater treatment system (tankage and components) standoffs are reduced to 50' to be consistent with the SHDR
 - Setback distances from discharge points and discharge channels are now consistent with the SHDR (Table 3.1).
 - Limestone outcrops in dry ditches changed to indicate within the channel for a distance of 50 feet instead of 25 feet of the channel bottom for the entire length.
 - Separation of discharge points and reduction of distance of dry ditch and intermittent stream channel.
 - Allows the separation from discharge points to be reduced from 500 to 250 feet for all weather streams by providing a Reliability Class II Facility.
 - Allows reduction of dry ditch or intermittent stream from 500 feet to 250 feet provided a Reliability Class I Facility that produce TL-3 effluent and a fecal coliform of 100col/100 ml or less.
- § 432 - Adds treatment unit and system component classifications
 - Generally or Nongenerally approved for all components
- § 434 - Reliability
 - Class I – meet one of the following:
 - A passive backup biological treatment system (i.g., intermittent sand, peat, or media filter of constructed wetlands);
 - A Generator for the treatment system with automatic transfer switch;

- A 24-Hour holding tank for raw wastewater with telemetry system to immediately notify the operator of system failure; or
 - Any alternative means that limits the discharge of non-compliant effluent to a maximum of 24 hours
 - Class II – meet one of following:
 - For biological treatment processes:
 - A fixed film biological treatment process such as an intermittent sand filter, recirculating media filter, or a peat filter;
 - A suspended growth biological system followed by post-filtration;
 - Telemetry to relay alarm conditions to the operator; or
 - Any alternative means that limits the discharge of a noncompliant effluent to a maximum of 36 hours.
 - For disinfection – ensure effluent is continually disinfected by providing electronic or mechanical means of monitoring so corrected within 36 hours.
 - Class III – Required for all weather with separation of discharge points of 500 feet or greater.
 - Non-compliant discharges limited to 48 hours.
- § 440 - Special factors affecting system design
- Repeals the prohibition on the use of discharging systems for dwellings subject to intermittent use and allows it under certain circumstances
 - Requires systems to be designed to accommodate peak flow rates and to protect against adverse weather conditions
 - Restricts access between humans, animals, and effluent for wetland discharges and provides more design flexibility
- § 460 - Adds design requirements for system components to parallel requirements contained in the Sewage Collection and Treatment Regulations (9VAC25-790 et seq.)
- Disinfection, Post-aeration, Post filtration (may be used to ensure compliance with reliability standards), Constructed wetlands used as passive backup
- § 470 - Construction Requirements
- Requires control panel to be within 15 feet of treatment unit with manual override switch.
- § 480 - Added compliance with plans prior to issuance of OP. Designer shall inspect and submit written comments concerning compliance -
- § 490 - Monitoring requirements
- Formal testing
 - Generally approved:
 - First Testing 45-90 days after startup
 - If compliant revert to annual testing
 - If non-compliant repeat 45-90 days
 - ✓ If compliant revert to annual testing
 - ✓ If non-compliant revert to monthly until satisfactory for 6 consecutive months
 - Nongenerally approved
 - First Testing 45-90 days after startup
 - If compliant 3 additional tests quarterly at least 60 days apart

- ✓ If 4th test compliant revert to annual testing
 - ✓ If non-compliant revert to monthly until satisfactory for 6 consecutive months
 - If non-compliant revert to monthly until satisfactory for 6 consecutive months
 - Informal Testing
 - Monthly for 6 consecutive months beginning the 2nd full month after issuance of the OP
 - After successful startup, semi-annually
 - VDH Annual Inspections - If system in compliance for a three-year cycle, VDH may reduce inspection frequency to three-year cycle
- § 500 O&M requirements
- Eliminates the requirement to submit a written operation and maintenance contract, and substitutes a certification statement from the owner on the application that the system will be operated, maintained and monitored, and reports will be filed in accordance with the regulation
 - Owner required having testing performed and engage an operator
 - Submittal of testing is evidence of ongoing contract
 - Defines other owner responsibilities
 - Defines operator responsibilities
 - Expands the number of allowed individuals who can perform maintenance to include Alternative Onsite Sewage System Operators in addition to the existing Class IV or higher wastewater works operator license
- Creates electronic reporting of testing - § 510