



Virginia
Regulatory
Town Hall

Proposed Regulation Agency Background Document

Agency Name:	State Water Control Board
VAC Chapter Number:	9 VAC 25-740
Regulation Title:	Regulation for Wastewater Reclamation and Reuse
Action Title:	Adoption of the Regulation for Wastewater Reclamation and Reuse
Date:	February 24, 2003

This information is required pursuant to the Administrative Process Act (§ 9-6.14:9.1 *et seq.* of the *Code of Virginia*), Executive Order Twenty-Five (98), Executive Order Fifty-Eight (99), and the *Virginia Register Form, Style and Procedure Manual*. Please refer to these sources for more information and other materials required to be submitted in the regulatory review package.

Summary*

Please provide a brief summary of the proposed new regulation, proposed amendments to an existing regulation, or the regulation proposed to be repealed. There is no need to state each provision or amendment or restate the purpose and intent of the regulation; instead give a summary of the regulatory action and alert the reader to all substantive matters or changes. If applicable, generally describe the existing regulation.

The proposed regulation will establish requirements for the reclamation and reuse of wastewater that are protective of state waters and public health. It will provide for greater flexibility and less stringent requirements commensurate with the quality of the reclaimed water and its intended use. The draft regulation encompasses the following reuse categories: irrigation for agricultural, forest and landscape uses, industrial processes (cooling, boiler feed, stack scrubbing and process water), and non-potable urban use (street washing, vehicle washing and fire protection). Additionally, it provides a case-by-case approval for any unlisted reuse categories. This regulation also prescribes specific design, operation and maintenance standards for wastewater reclamation and reuse systems.

Basis*

Please identify the state and/or federal source of legal authority to promulgate the regulation. The discussion of this statutory authority should: 1) describe its scope and the extent to which it is mandatory or discretionary; and 2) include a brief statement relating the content of the statutory authority to the specific regulation. In addition, where applicable, please describe the extent to which proposed changes exceed federal minimum requirements. Full citations of legal authority and, if available, web site addresses for locating the text of the cited authority must be provided. Please state that the Office of the Attorney General has certified that the agency has the statutory authority to promulgate the proposed regulation and that it comports with applicable state and/or federal law.

The basis for this regulation is Section 62.1-44.2 et seq. of the Code of Virginia. Specifically, Section 62.1-44.2 establishes the purpose of the State Water Control Law that is to promote and encourage the reclamation and reuse of wastewater in a manner protective of the environment and public health. Further, Section 62.1-44.15:15 authorizes the Board to promote and establish requirements for the reclamation and reuse of wastewater that are protective of state waters and public health as an alternative to directly discharging pollutants into state waters. The full texts of the legal authority can be found at the following web site address:

<http://www.vipnet.org/vipnet/government/code-of-virginia.html>

The Office of the Attorney General has certified that the Board has the statutory authority to promulgate the proposed regulation under applicable law, including Chapter 3.1 of Title 62.1 of the Code of Virginia.

Purpose*

Please provide a statement explaining the need for the new or amended regulation. This statement must include the rationale or justification of the proposed regulatory action and detail the specific reasons it is essential to protect the health, safety or welfare of citizens. A statement of a general nature is not acceptable, particular rationales must be explicitly discussed. Please include a discussion of the goals of the proposal and the problems the proposal is intended to solve.

The purpose of the proposed action is to adopt the Regulation for Wastewater Reclamation and Reuse in order to satisfy the provisions of the Code of Virginia, §62.1-44.15 as mandated by the 2000 General Assembly in House Bill 1282.

Although a regulatory framework for wastewater reclamation and reuse involving irrigation has been established through the Virginia Pollution Abatement (VPA) Permit Regulation (9 VAC 25-32-10 et seq.) or Virginia Pollutant Discharge Elimination System (VPDES) Permit Regulation (9 VAC 25-31-10 et seq.), these regulations do not prescribe any technical standards for this type of operation. The reuse of reclaimed water for other purposes (such as industrial cooling processes, fire protection, street washing, etc.) are not currently required to obtain a permit from the Department.

Pursuant to the action of the 2000 General Assembly, the Board must promote and establish requirements for the reclamation and reuse of wastewater that are protective of state waters and public health as an alternative to directly discharging pollutant into state waters. The proposed regulation will establish technical standards that address various potential categories of reuse. Therefore, the proposed regulatory action would be essential to protect the health, safety and welfare of the citizens of Commonwealth. It would also be essential to protect the Commonwealth's environment and natural resources from pollution, impairment or destruction.

Substance*

Please identify and explain the new substantive provisions, the substantive changes to existing sections, or both where appropriate. Please note that a more detailed discussion is required under the statement providing detail of the regulatory action's changes.

The proposed regulation will establish technical standards that address various potential categories of reuse and provide for greater flexibility and less stringent requirements commensurate with the quality of the reclaimed water and its intended use. Two sets of reclaimed water quality were proposed for the following reuse categories: irrigation for agricultural, forest and landscape uses, industrial processes (cooling, boiler feed, stack scrubbing and process water), and non-potable urban use (street washing, vehicle washing and fire protection). Additionally, it provides a case-by-case approval for any unlisted reuse categories. This regulation also prescribes specific design, operation and maintenance standards for wastewater reclamation and reuse systems. These standards will be incorporated into the VPA or VPDES permit issued to the treatment works that produces the reclaimed water and a facility that reuses the reclaimed water.

Issues*

Please provide a statement identifying the issues associated with the proposed regulatory action. The term "issues" means: 1) the primary advantages and disadvantages to the public, such as individual private citizens or businesses, of implementing the new or amended provisions; 2) the primary advantages and disadvantages to the agency or the Commonwealth; and 3) other pertinent matters of interest to the regulated community, government officials, and the public. If there are no disadvantages to the public or the Commonwealth, please include a sentence to that effect.

The advantage of this proposal to the public and business entities is to encourage water reuse as a water resources conservation measure while protecting human health and the environment of Commonwealth. Specific technical standards will be established for irrigation for agricultural, forest and landscape uses, industrial processes (cooling, boiler feed, stack scrubbing and process water), and non-potable urban use (street washing, vehicle washing and fire protection). In addition, it will provide a case-by-case approval for any unlisted reuse categories.

There is no potential disadvantage to the public or the Commonwealth resulting from the adoption of the proposed regulation.

Locality Particularly Affected*

Please identify any locality particularly affected by the proposed regulation. Locality particularly affected means any locality which bears any identified disproportionate material impact which would not be experienced by other localities.

The proposed action is statewide in application and will not affect one locality more than another.

Public Participation*

Please include a statement that in addition to any other comments on the proposal, the agency is seeking comments on the costs and benefits of the proposal.

In addition to any other comments, the Board is requesting comments from the public on:

1. The costs and benefits of the proposal.
2. Whether any provisions of the regulation discourage the reclamation and reuse of wastewater in the Commonwealth.
3. The following proposed changes (in brackets) to the draft regulation:

9 VAC 25-740-30 Applicability

The requirements of this regulation shall apply to the reclamation and reuse systems[. Unless] unless specifically excluded under 9 VAC 25-740-40[. this regulation The requirements] shall apply to all new reclamation and reuse systems for which VPA or VPDES permit applications are received after the effective date of this regulation. [This regulation The requirements] shall also apply to all existing permitted facilities producing, distributing or using reclaimed water when such facilities are to be modified or expanded, but this regulation shall apply only to the expansion or modification thereof, or if treatment processes are altered to produce reclaimed water. The owners of all existing unpermitted reclamation and reuse systems shall submit a complete VPA or VPDES permit application [in accordance with this regulation within 120 days of the effective date of this regulation within 120 days upon being requested by the board].

9 VAC 25-740-50 A. Virginia Pollution Abatement (VPA) Permit Regulation (9 VAC 25-32-10 et seq.)

The VPA Permit Regulation delineates the procedures and requirements to be followed in connection with the VPA permits issued by the Board pursuant to the State Water Control Law. While any treatment works treating domestic, municipal or industrial wastewater that produces reclaimed water or a facility that reuses reclaimed water in a manner that does not result in a discharge to surface waters [is may be] required to obtain a VPA permit, this regulation (9 VAC 25-740-10 et seq.) prescribes specific design, operation and maintenance standards for wastewater reclamation and water reuse. These specific requirements shall be incorporated into the VPA permit application and the VPA permit when applicable. [On a case-by-case basis, the board may allow a reuse system to reuse reclaimed water for irrigation or other purposes under

an agreement with the owner of the reclamation system or the reclaimed water agent, where the owner of the reclamation system or the reclaimed water agent retains responsibility for compliance with this regulation, in lieu of a permit issued by the board under 9 VAC 25-32-10 et seq.]

9 VAC 25-740-150 C. The Board may prescribe specific reclaimed water quality requirements for any uses not listed in this regulation. The Board shall, using its best professional judgment, determine and require compliance with reclaimed water quality requirements needed to protect public health and the environment. The Board shall consider the following factors when prescribing reclaimed water quality requirements for an unlisted type of reuse:

1. The risk to public health;
2. The degree of public access to the site where the reclaimed water is used and human exposure to the reclaimed water;
- ~~3. The level of treatment necessary to ensure that the reclaimed water is aesthetically acceptable;~~
- ~~4.~~ 3.] The level of treatment necessary to prevent nuisance conditions;
- ~~5.~~ 4.] The means of application of the reclaimed water;
- ~~6.~~ 5.] The degree of treatment necessary to ensure compliance with the Water Quality Standards (9 VAC 25-260-5 et seq.);
- ~~7.~~ 6.] The potential for improper or unintended use of the reclaimed water;
- ~~8.~~ 7.] The reuse guidelines, criteria, or standards adopted or recommended by the U.S. Environmental Protection Agency or other federal or state agencies that would apply to the type of reuse; and
- ~~9.~~ 8.] Similar wastewater reclamation experience of reclaimed water providers in the United States.

Anyone wishing to submit written comments for the public comment file may do so at the public hearing, by mail, fax, or email to Lily Choi, Department of Environmental Quality, P. O. Box 10009, Richmond, VA 23240, (804) 698-4054, Fax (804) 698-4032, ychoi@deq.state.va.us. Written comments should be signed by the commenter and include the name and address of the commenter. In order to be considered the comments must be received by the close of the comment period. Oral comments may be submitted at the public hearing.

Fiscal Impact

Please identify the anticipated fiscal impacts and at a minimum include: (a) the projected cost to the state to implement and enforce the proposed regulation, including (i) fund source / fund detail, (ii) budget activity with a cross-reference to program and subprogram, and (iii) a delineation of one-time versus on-going expenditures; (b) the projected cost of the regulation on localities; (c) a description of the individuals, businesses or other entities that are likely to be affected by the regulation; (d) the agency's best estimate of the number of such entities that will be affected; e) the projected cost of the regulation for affected individuals, businesses, or other entities; and f) an estimate of the impact of the proposed regulation upon small businesses as defined in § 9-199 of the Code of Virginia or organizations in Virginia.

The Department will implement and enforce the proposed regulation through the VPA or VPDES permit program with existing available resources. Although the number of projected facilities affected by this proposed regulation is unknown, it is anticipated that an increase in permit fees would accommodate some if not all costs to the Department. As to the regulated community, it is anticipated that the savings incurred resulting from the use of reclaimed water instead of potable water would offset the permit and compliance costs to the affected facility.

Detail of Changes

Please detail any changes, other than strictly editorial changes, that are being proposed. Please detail new substantive provisions, all substantive changes to existing sections, or both where appropriate. This statement should provide a section-by-section description - or cross-walk - of changes implemented by the proposed regulatory action. Where applicable, include citations to the specific sections of an existing regulation being amended and explain the consequences of the proposed changes.

This is a new regulation and there are no changes to an existing regulation.

Alternatives

Please describe the specific alternatives to the proposal considered and the rationale used by the agency to select the least burdensome or intrusive alternative that meets the essential purpose of the action.

The Board has considered the following alternatives:

1. Promulgate a water reuse regulation that establishes technical standards for various potential reuse categories. The permitting mechanisms established in the VPA and VPDES Permit Regulations could be incorporated by reference.
2. Amend the VPA Permit Regulation by incorporating the technical standards for various potential reuse categories. These standards could then be used as criteria for a VPDES permit issued to facilities that may employ any reuse options in addition to the point source discharge.
3. Take no action to adopt the regulation. Instead, establish requirements by issuing a staff guidance. This option was not recommended because the result is not as predictable or certain as regulation.

The Board has determined that alternative 1 is the least burdensome or intrusive alternative available that will satisfy the statutory mandates. The requirements established by the proposed regulation would apply to either of the existing permitting programs, VPA or VPDES. It would also provide a predictable and certain process for the approval or denial of requests for the reuse of reclaimed water in Virginia.

Public Comment

Please summarize all public comment received during the NOIRA comment period and provide the agency response.

Following is a summary list of comments from the public comment period on the proposed regulation for wastewater reclamation and reuse.

- Support and encourage DEQ's effort to promulgate the regulation.
- The proposed regulation should contain two parts: 1) a general permit that would outline the provisions and technical standards for reuse projects that fit a certain uniform definition, and 2) specific technical design and operational requirements for projects not meeting the requirements for the general permit. This approach will reduce the costs of the permitting process while protecting the environment and public health. It would also fulfill the objective of the General Assembly to promote and encourage the reclamation and reuse of wastewater.
- The impact of this regulation on farm and forest lands would be positive as farm and forest lands can benefit from irrigation with reclaimed water, growth rates and yields of crops can be maximized, and profitability improved. In addition, long-term irrigation commitments can help preserve and maintain farm and forestland for the future.
- The proposed regulation should only pertain to those operations that DEQ has determined clearly need additional regulation. Water that is used at nonmetallic mineral mining facilities for dust control should not need another permit because the water will be tested before it leaves the site under the general permit.
- Permits should not be provided for: 1) the reuse of reclaimed water in areas containing, or adjacent to, an impaired stream segment or where there are shellfish condemnations unless it can be scientifically shown that the permit action will result in reducing (not maintaining) pollutant loading; 2) the reuse of reclaimed water unless it occurs in geographic areas where groundwater management plan has been approved; 3) the reuse of reclaimed water in or adjacent to sources of drinking water; and 4) groundwater recharge in areas where the groundwater is hydrologically closely connected to surface water.

Agency Response: The participatory approach was used for the proposed action. An Ad Hoc Advisory Committee was used to provide input to the development of the draft regulation. Specifically, the draft regulation was developed in response to suggestions by the advisory group.

Clarity of the Regulation

Please provide a statement indicating that the agency, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

The regulation was kept as simple as possible while clearly conveying its intent and requirements. The language is consistent with that used in other regulations issued by the Board and other existing statutes and state regulations. The Board, through examination of the regulation and relevant public comments, has determined that the regulation is clearly written and easily understandable by the individuals and entities affected.

Periodic Review

Please supply a schedule setting forth when the agency will initiate a review and re-evaluation to determine if the regulation should be continued, amended, or terminated. The specific and measurable regulatory goals should be outlined with this schedule. The review shall take place no later than three years after the proposed regulation is expected to be effective.

The Department will review the adopted regulation in three years to evaluate the effectiveness and need.

Family Impact Statement

Please provide an analysis of the proposed regulatory action that assesses the potential impact on the institution of the family and family stability including the extent to which the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; and 4) increase or decrease disposable family income.

The development of the proposed regulation is to establish technical standards for wastewater reclamation and reuse systems and has no direct impact on family institution and stability.