



Economic Impact Analysis Virginia Department of Planning and Budget

9 VAC 25-32; 31; 20 – Virginia Pollution Abatement Permit Regulation; Virginia Pollutant Discharge Elimination System Permit Regulation; Fees for Permits and Certificates
State Water Control Board
February 19, 2010

Summary of the Proposed Amendments to Regulation

The State Water Control Board proposes to 1) require that all routine dewatered biosolids storage facilities be covered to prevent contact with precipitation, 2) amend the current fees, 3) introduce new public notice requirements, 4) introduce signage requirements that must be visible from each public right-of-way adjacent to the land application field and increase the duration they must be maintained on the property, 5) allow the ability to extend a residence buffer from the standard 200 feet to 400 feet upon request of the occupant, 6) add a requirement for an improved method of PCB testing at the time of initial permit application, 7) increase the financial assurance requirements to a uniform \$2 million across the board for all facilities, 8) require nutrient management plans for exceptional quality biosolids that do not meet specific criteria, and 9) clarify that the localities could only be reimbursed for monitoring costs related to determining compliance.

Result of Analysis

The benefits likely exceed the costs for all proposed changes.

Estimated Economic Impact

These regulations apply to land application of biosolids. Biosolids are the treated form of the sewage sludge generated during wastewater treatment process. Because raw sewage sludge contains pathogens, there are potential health risks associated with application of improperly prepared biosolids. Untreated sewage sludge also has strong objectionable odors and attracts disease vectors such as flies, mosquitoes, rodents, and birds that can transmit diseases. Finally,

pollutants and organisms found in untreated sewage sludge may contaminate surface water, groundwater, and soils and may increase human exposure to health risks.

However, once the potential risks are reduced to safe levels by appropriate treatment during the production process, biosolids have beneficial uses. Biosolids are valuable due to their mineral and organic matter content. If properly prepared, biosolids can replace essential fertilizer elements used by plants and reduce artificial fertilizer costs. Land application of biosolids also makes it possible to avoid otherwise costly disposal options such as land filling or incineration.

Beginning January 1, 2008, the Department of Environmental Quality (DEQ) assumed control of the state's oversight of land application of biosolids from the Virginia Department of Health (VDH). This change was made in accordance with Chapter 881 of the 2007 *Acts of Assembly*. At that time, VDH had three regulatory actions underway. These amendments pertained to the field storage of biosolids, permit fees, and site access control. The current regulatory action incorporates those changes and would address the following additional issues: consistency between VPA and VPDES permit requirements, public notice processes, permit modification procedures, processes to establish appropriate buffers to address health concerns, sampling requirements, nutrient management requirements, animal health issues associated with grazing, financial assurance procedures, permitting procedures, distribution and marketing of exceptional quality biosolids, reclamation of mined and disturbed lands, and reimbursement of local monitors. The proposed changes with the significant economic effects are discussed below.

One of the proposed changes will require that all routine dewatered biosolids storage facilities be covered to prevent contact with precipitation. The dewatered biosolids keep the odor down and prevent run off. According to DEQ, the cost of erecting a roof on these storage facilities is about \$100,000 per facility on average. Two or three facilities are expected to construct roof structures to comply with this requirement.

The proposed changes also amend the current fees. The State Water Control Board (the board) proposes to introduce a new fee of \$1,000 for major Virginia Pollutant Discharge Elimination System (VPDES) permit modifications. DEQ expects to receive approximately 12 major modification applications per year. Also, the board proposes to reduce the annual maintenance fee for Virginia Pollutant Abatement (VPA) permit from \$750 to \$500. There are approximately 100 of these permits issued so the expected fiscal impact is about a \$25,000

reduction in fees collected. The main benefit of this change is aligning the fee structure in relation to agency's resources needed for permit applications.

Another proposed change introduces new public notice requirements. Now, major modifications will have to be announced in newspapers which would be paid by the permit applicant. DEQ will also have to issue public notices in the newspapers when the permit modifications are reviewed. It costs approximately \$200 - \$800 for a newspaper notice. Another proposed change will require that adjacent property owners be notified whenever acreage is added to the permit regardless of the percentage increase. This is expected to introduce additional costs in terms of additional postage and staff time on the agency.

The proposed rules also introduce signage requirements that must be visible from each public right-of-way adjacent to the land application field and increase the duration they must be maintained on the property. This is expected to create a need for an additional 200-300 new signs whose costs would be incurred by the permit applicants. This change is expected to benefit the neighboring property owners because they will have an improved and extended period of notification.

Another proposed change will allow DEQ to extend a residence buffer from the standard 200 feet to 400 feet upon request of the occupant. This requirement introduces additional costs on permit holders in terms of the reduced area where biosolids could be applied. However, it affords more protection to the neighbors.

The proposed changes also add a requirement for improved method of Polychlorinated biphenyl (PCB) testing at the time of initial permit application. This cost would be paid by the permit applicant and is expected to be about \$750-\$1,500 per sample. The cost of current required PCB testing is about \$200-\$300 per sample. There are approximately 100 sources that may be affected by this change. On the other hand, the main benefit of this change is improving the identification process of potentially risky applications.

The proposed regulations will also increase the financial assurance requirements to a uniform \$2 million across the board for all facilities from the current requirement of \$1 million for small facilities and \$2 million for larger facilities. DEQ estimates that approximately 15 contractors will be subject to the increased financial assurance requirements. However, DEQ

does not estimate this being a significant cost because of the availability of many alternate methods that can be used to demonstrate financial assurance.

Another change will specify that nutrient management plans for exceptional quality biosolids are required unless the solids content is greater than 90%, or greater than 40% in the case of a biosolids product blended with additional carbon material. Exceptional quality biosolids are biosolids materials that contain lower pollutant levels and have been treated to achieve non-detectable levels of pathogens and reduced vector attraction and they are registered fertilizers with the Virginia Department of Agriculture and Consumer Services.

Finally, the proposed changes will clarify that the localities could only be reimbursed for monitoring costs related to determining compliance. Charges for monitoring not associated with determining compliance with state or federal law would be ineligible for reimbursement. The benefit of this change is that the biosolids fees will be used strictly with monitoring of biosolids activity.

Businesses and Entities Affected

There are approximately 40 locality owned wastewater treatment plants and 20 contractors that currently hold permits to land apply biosolids. Since January 2008, there have been 8 contractors and 22 locality owned wastewater treatment plants that land applied biosolids.

Localities Particularly Affected

The proposed regulations apply throughout the Commonwealth.

Projected Impact on Employment

Some of the changes are expected to increase the demand for labor. These changes include having to cover storage facilities, introducing new public notice requirements, and introducing new signage requirements. However, some of the other proposed changes such as no longer requiring nutrient management plans have the potential to reduce the demand for labor and offset some of the expected increase due to other changes.

Effects on the Use and Value of Private Property

Increased buffer requirements may be interpreted as a restriction of the use of one's private property.

Also, the asset values of biosolids land application contractors could be negatively affected due to increased costs as discussed above. However, some of these costs are expected to be offset due to some other changes such as reduced annual maintenance fee for VPA permits.

Small Businesses: Costs and Other Effects

All of the 20 contractors involved in land application of biosolids are believed to be small businesses. Thus, all of the cost and other effects discussed above apply to them.

Small Businesses: Alternative Method that Minimizes Adverse Impact

There are no known alternatives that would minimize the adverse impacts while achieving the same goals.

Real Estate Development Costs

No significant effects on real estate development costs are expected.

Legal Mandate

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.H of the Administrative Process Act and Executive Order Number 107 (09). Section 2.2-4007.H requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. Further, if the proposed regulation has adverse effect on small businesses, Section 2.2-4007.H requires that such economic impact analyses include (i) an identification and estimate of the number of small businesses subject to the regulation; (ii) the projected reporting, recordkeeping, and other administrative costs required for small businesses to comply with the regulation, including the type of professional skills necessary for preparing required reports and other documents; (iii) a statement of the probable effect of the regulation on affected small businesses; and (iv) a description of any less intrusive or less costly alternative methods of achieving the purpose of the regulation. The analysis presented above represents DPB's best estimate of these economic impacts.