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## SENATE BILL NO. 1122

Offered January 20, 1997

A BILL to amend the Code of Virginia by adding in Chapter 3.1 of Title 62.1 an article numbered 4.1, consisting of sections numbered 62.1-44.19:4 through 62.1-44.19:9, relating to the Water Quality Monitoring, Information and Restoration Act.

Patrons—Gartlan, Barry, Couric, Earley, Holland, Houck, Marye, Maxwell, Ticer, Whipple and Woods;  
Delegates: Connally, Dillard, Griffith, Morgan, Murphy and Puller

Referred to the Committee on Agriculture, Conservation and Natural Resources

**Be it enacted by the General Assembly of Virginia:**

**1. That the Code of Virginia is amended by adding in Chapter 3.1 of Title 62.1 an article numbered 4.1, consisting of sections numbered 62.1-44.19:4 through 62.1-44.19:9 as follows:**

*Article 4.1.*

*Water Quality Monitoring, Information and Restoration Act.*

*§ 62.1-44.19:4. Definitions.*

*As used in this article unless the context requires a different meaning:*

*"Clean Water Act" means the Federal Water Pollution Control Act, as amended, (33 U.S.C. § 1251 et seq.).*

*"Fully supporting" means those waters meeting the fishable and swimmable goals of the Clean Water Act.*

*"Impaired waters" means those water bodies or water body segments that are not "fully supporting" or are "partially supporting" of the fishable and swimmable goals of the Clean Water Act and include those waters identified in subdivision C 1 of § 62.1-44.19:5 as impaired waters.*

*"Toxic impaired waters" means those waters identified as impaired due to toxic contamination in the latest report by the Commonwealth pursuant to § 303(d) of the Clean Water Act and § 62.1-44.19:5.*

*"Toxic substance" or "toxics" means those substances listed pursuant to the Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 et seq.) and those substances on the "toxics of concern" list of the Chesapeake Bay Program.*

*"Toxic use reduction" means the reduction in the use of toxics in all processes and products, in production processes, or in raw materials, or through establishment or facility changes, that reduce, avoid, or eliminate the use of toxic or hazardous substances or generation of toxic or hazardous byproducts. The term does not include the reduction in the discharge of a toxic substances through incorporation of the toxic substance into a product, the capture of a toxic before it is released from an establishment, off-site or out-of-production recycling, incineration, or end of pipe treatment.*

*§ 62.1-44.19:5. Water quality monitoring and reporting.*

*A. The Board shall develop the reports required by § 1313(d) (hereafter the "303(d) report") and § 1315(b) (hereafter the "305(b) report") of the Clean Water Act in a manner such that the reports will: (i) provide an accurate and comprehensive assessment of the quality of state surface waters; (ii) identify trends in water quality for specific and easily identifiable geographically defined water segments; (iii) provide a basis for developing initiatives and programs to address current and potential water quality problems; (iv) provide a basis for determining proper staff and resource allocation; and (v) be consistent and comparable documents, with accurate and comparable data that is representative of the state as a whole. The reports shall be produced biennially but shall incorporate at least the preceding five years of data. Data older than five years shall be incorporated when scientifically appropriate for trend analysis. The Board shall conduct monitoring as described in subsection B and consider and incorporate factors as described in subsection C into the reports. The Board may conduct additional monitoring and consider and incorporate other factors or information it deems appropriate or necessary.*

*B. Monitoring shall be conducted so that it:*

*1. Establishes consistent site and monitoring techniques to ensure data reliability, the comparability of data collected throughout the state, and the ability to determine water quality trends within specific and easily identifiable geographically defined water segments.*

*2. Expands the percentage of river and stream miles monitored so as to include all river and stream miles in the state according to a developed plan and schedule. Water monitoring and sampling shall be expanded first to water bodies for which there is credible evidence to support a suspicion of impairment.*

*3. Monitors for all substances listed on the Chesapeake Bay Program's "toxics of concern" list, all substances discharged to state waters at annual levels of 5,000 pounds or more that are listed under the*

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60 Emergency Planning and Community Right-to-Know Act (42 U.S.C. § 11001 et seq.), all substances that  
61 have water quality standards, and such other substances as the Board determines are appropriate. The  
62 Board shall develop and implement a plan and schedule for the phasing in of monitoring required by  
63 this subdivision. The Board shall, upon development of the plan, publish notice in the Virginia Register  
64 that the plan is available for public inspection.

65 4. Provides for increased use of sediment monitoring as well as for biological monitoring of  
66 macro-invertebrate or benthic organisms and provides for specific assessments of water quality based on  
67 the results of such monitoring.

68 5. Increases frequency of sample collection at each monitoring station to one or more per month  
69 unless the number of samples is not scientifically necessary to provide accurate and usable data. If  
70 statistical analysis is necessary to resolve issues surrounding potentially low sampling frequency, a  
71 sensitivity analysis shall be used to describe both potential overestimation and underestimation of water  
72 quality.

73 6. Utilizes a mobile lab or labs to provide independent monitoring and assessments of effluent from  
74 permitted industrial and municipal establishments.

75 7. Utilizes announced and unannounced inspections, testing of and sample collection from  
76 establishments discharging to state waters, including use of a mobile lab.

77 C. The 303(d) report shall:

78 1. In addition to such other categories as the Board deems necessary or appropriate, identify  
79 geographically defined water segments as impaired if: (i) there exists water quality standard  
80 exceedences; (ii) there is present a fishing restriction or advisory; (iii) there is present shellfish  
81 contamination as determined by the Virginia Department of Health that has resulted in bans on direct  
82 consumption of the shellfish from those waters without depuration; (iv) macro-invertebrate, benthic  
83 organism, or sediment sampling indicates elevated levels of toxics or hazardous substances; (v) nutrient  
84 overenrichment is present; (vi) losses of underwater grasses have occurred during the reporting period;  
85 (vii) violation of human health standards are detected in results of fish tissue or other sampling tests; or  
86 (viii) credible evidence exists to support a classification of impairment. Waters identified as "naturally  
87 impaired," "fully supporting but threatened," or "evaluated (without monitoring) as impaired" shall be  
88 set out in the report in the same format as those listed as "impaired."

89 2. Include an assessment, conducted in conjunction with the Department of Conservation and  
90 Recreation, for the attribution of impairment to point and nonpoint sources. The absence of point source  
91 permit exceedences on or near the impaired water shall not be considered a default mechanism for  
92 attributing impairment to nonpoint sources. The cumulative impact of multiple point source discharges  
93 and of discharges from a single facility over time shall be assessed in determining the cause for  
94 impairment.

95 D. The 303(d) and 305(b) reports shall:

96 1. Be reviewed and assessed with the assistance of scientists from state universities prior to its  
97 submission by the Board to the United States Environmental Protection Agency.

98 2. Indicate water quality trends for specific and easily identifiable geographically defined water  
99 segments and provide summaries of the trends as well as available data and evaluations so that citizens  
100 of the Commonwealth can easily interpret and understand the conditions of the geographically defined  
101 water segments.

102 § 62.1-44.19:6. Citizen right-to-know provisions.

103 A. The Board, based on the information in the 303(d) and 305(b) reports, shall:

104 1. Post notices at access points to all toxic impaired waters and all waters that contain shellfish bed  
105 contamination, or fishing restrictions or advisories. The notice shall contain: (i) the basis for the  
106 impaired designation or for the restriction or advisory; (ii) a statement of the potential health risks  
107 associated with exposure to the water or fish or shellfish inhabiting it; and (iii) provide information on  
108 access to the citizen hot-line described in subdivision 2. The Board shall annually notify local  
109 newspapers, interested conservation organizations and riparian property owners within the surrounding  
110 geographic area, as defined by the Board, of any posting and its contents. The Board shall coordinate  
111 with the Virginia Marine Resources Commission and the Department of Game and Inland Fisheries to  
112 assure that adequate notice of posted waters is provided to those purchasing hunting and fishing  
113 licenses.

114 2. Establish a "citizen hot-line" for citizens to obtain, both telephonically and through computer  
115 technology, information about the condition of waterways, including information on toxics, toxic  
116 discharges, permit exceedences and other water quality related issues.

117 B. The Board shall deliver to local property owners and newspapers the information reported to the  
118 Director of the Department of Environmental Quality pursuant to § 62.1-44.5.

119 § 62.1-44.19:7. Plans to address impaired waters.

120 A. The Board shall develop and implement a plan to achieve fully supporting status for impaired  
121 waters. The plan shall include the date of expected achievement of water quality objectives, measurable

goals, the corrective actions necessary, and the associated costs, benefits, and environmental impact of addressing impairment and the expeditious development and implementation of total maximum daily loads when appropriate and as required pursuant to subsection C.

B. The plan required by subsection A shall include, but not be limited to, the development of water quality standards for: (i) those substances listed on the Chesapeake Bay Program's "toxics of concern" list; (ii) those substances listed under the Emergency Planning and Community Right-to-Know Act (42 U.S.C. §11001 et seq.) and discharged into state waters at annual levels of 5,000 pounds or more or at lower levels if the substance is identified by the Board as having a particularly adverse effect on state water quality or living resources; (iii) nitrogen; and (iv) phosphorous. The standards shall be promulgated pursuant to a schedule adopted by the Board with the first of the standards to be promulgated as final no later than July 1, 1998.

C. The plan required by subsection A shall, upon identification by the Board of impaired waters, establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Board shall develop and implement pursuant to a schedule total maximum daily loads of pollutants that may enter the water for each impaired water body as required by the Clean Water Act.

D. The plan required by subsection A shall, upon identification by the Board of toxic- impaired waters, include provisions for toxic use reduction plans as required by § 62.1-44.19:8.

§ 62.1-44.19:8. Toxic use reduction for toxic-impaired waters.

A. As a condition of issuance or reissuance of a permit under this chapter to an owner of an establishment that discharges toxics to toxic-impaired water, the owner shall develop a toxics use reduction plan for those toxics identified as contributing to the impairment. The plan shall be submitted to the Board for approval prior to the issuance or reissuance of a permit. The Board shall approve a toxic use reduction plan if it eliminates or reduces the use of toxics to the greatest extent possible based on the best available technology. The Board may issue or reissue a permit without a toxic use reduction plan if the timing of the issuance or reissuance is such that it is impracticable to not issue the permit and the permit includes enforceable provisions for the development of a plan within a one-year period. The need for a toxic use reduction plan shall be a basis for reopening a permit.

B. Toxic use reduction may be achieved through:

1. Input substitutions, which refers to replacing a toxic or hazardous substance or raw material used in a production process with non-toxic or less toxic substances;

2. Product reformulation, which refers to substituting for an existing end product an end product which is non-toxic or less toxic upon use, release or disposal;

3. Production unit redesign or modification, which refer to developing and using production units of a different design than those to be replaced;

4. Production unit modernization, which refers to upgrading or replacing existing production unit equipment and methods with other equipment and methods based on the same production unit;

5. Improved operation and maintenance of production unit equipment and methods which refers to modifying or adding to existing equipment or methods including, but not limited to, such techniques as improved housekeeping practices, system adjustments, product and process inspections or production unit control equipment or methods;

6. Recycling, reuse or extended use of toxics by using equipment or methods which become an integral part of the production unit of concern, including, but not limited to, filtration and other closed loop methods; and

7. Other measures that will achieve toxic use reduction.

Toxics use reduction shall not include or in any way be inferred to promote or require incineration, transfer from one medium or release or discharge to other media, or off-site or out-of-production unit waste recycling or methods of end-of-pipe treatment of toxics as waste.

§ 62.1-44.19:9. Incentives for toxic use reduction plans.

The Department of Environmental Quality shall give priority to the consideration, analysis and processing of permit applications by any owner required to submit a toxic use reduction plan pursuant to § 62.1-44.19:8 and to any owner not required to submit such a plan but that chooses to do so. The Board may provide additional incentives as it may deem appropriate and which are allowable under state and federal law.