REPORT OF THE

JOINT SUBCOMMITTEE TO EXAMINE THE FINANCIAL ASSURANCE REQUIREMENTS FOR SOLID WASTE MANAGEMENT FACILITIES

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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I. AUTHORITY FOR STUDY

During the 1999 Session, the General Assembly passed House Joint Resolution No. 585 establishing a joint subcommittee to examine the financial assurance requirements for solid waste management facilities (Appendix A). The 11-member subcommittee was charged with evaluating the reliability of each of the various mechanisms that owners or operators of solid waste management facilities in Virginia may use to demonstrate financial assurance. Particular attention was to be paid to the use of "self assurance" mechanisms, including insurance coverage provided by pure captive companies and financial tests and corporate guarantees. The subcommittee was to make recommendations and provide options for regulatory or legislative actions that would improve the reliability of financial assurance mechanisms.

II. FINANCIAL ASSURANCE REQUIREMENTS

The purpose of financial assurance is to ensure that owners and operators of solid waste facilities are financially responsible for the costs of closing their facilities and conducting any required post-closure and corrective action activities. Such assurance is a guarantee that funds will be available to properly conduct these activities. While the owners are responsible for closure and post-closure costs, it is only when they improperly close the facility or do not have the financial capacity to do so that the financial assurance mechanism is triggered.

Virginia enacted a financial assurance statute (§ 10.1-1410) (Appendix B) in 1986, which predates by eight years the federal criteria for financial assurance. The Virginia law authorizes the Virginia Waste Management Board (VWMB) to promulgate regulations ensuring, that if the facility is abandoned, the costs associated with protecting the public health and safety may be recovered from the person abandoning the facility. The statute gives the VWMB discretion as to the types of mechanisms it may require for a demonstration of an owner or operator's financial capacity, including the creation of a trust fund, surety, commercial insurance or self-insurance.

The VWMB's financial assurance regulation became effective in 1987. At that time the regulations required financial assurance for closure and post-closure, and exempted local government, state and federal entities from having to demonstrate financial assurance. The Environmental Protection Agency's (EPA) financial assurance criteria became effective in April 1994; however, the effective date was then delayed until 1997, in order to give EPA the opportunity to promulgate financial assurance regulations allowing local governments and corporations to use a financial test as an acceptable assurance mechanism. Shortly thereafter, in 1998, in order to conform and be in compliance with the federal financial assurance criteria, Virginia amended its regulations. The amended

regulations (i) required local governments, which had previously been exempted, to comply with financial assurance requirements, (ii) required financial assurance to cover the costs of corrective action, and (iii) repealed the requirement to demonstrate third party liability coverage for bodily injury and property damage from sudden and nonsudden releases. The major difference now between Virginia and federal regulations is that the federal regulations only require financial assurance for sanitary landfills; whereas, Virginia requires financial assurance for all solid waste treatment and disposal facilities (e.g. resource and energy recovery facilities, incinerators, medical waste facilities, composting facilities and vegetative waste facilities).

An owner/operator of a solid waste management facility must submit a closure and post-closure financial assurance mechanism as part of the permit process. However, financial assurance for corrective action must be submitted within 120 days of the submission of the corrective action plan. Owners/operators are required to update their mechanisms annually to account for inflation. An owner/operator must also prepare a detailed, written estimate for the costs of closure and post-closure care of the facility. DEQ reviews the estimate for compliance with the regulations before approving the operation of the facility. The permittee's closure cost estimate is calculated based on (i) a worst case scenario -- the largest area left uncapped at any time, (ii) the cost that a third party would incur for closing the facility, and (iii) an annual cost adjustment based on inflation. Both the post-closure and corrective action cost estimates are based on the maximum costs over the total respective periods, adjusted annually for inflation.

III. SUBCOMMITTEE DELIBERATIONS

In its examination of financial assurance for solid waste management facilities, the subcommittee solicited testimony from a wide range of individuals including representatives of state and local government, the solid waste industry, the insurance industry and environmental organizations. It devoted much of its time on documenting the types of financial assurance mechanisms being used by owners/operators of facilities in Virginia and whether these mechanisms are adequate to ensure the timely response to a potential environmental threat from improperly operated facilities.

A. TYPES OF FINANCIAL ASSURANCE AUTHORIZED

Financial assurance mechanisms are submitted to and must be approved by DEQ each year or when permit conditions change. They can be characterized as falling into two categories: third-party guarantees and forms of self-insurance. The following is an explanation of the types of third-party guarantees or mechanisms:

- **Trust agreement.** The owner/operator establishes a fund with a banking institution or trust company for use by DEQ. Owners/operators of

facilities other than landfills must fund the trust fully at the time of its establishment; whereas, landfill owners/operators make annual payments into the fund over the operating life of the landfill. Owners/operators can request reimbursement from the fund for expenditures approved by the DEQ.

- **Performance bond.** A surety company promises to perform closure, post-closure, or corrective action, if the owner/operator fails to do so. The surety company also has the option of placing the entire amount of the bond in a standby trust payable to DEQ. A performance bond functions similar to an insurance policy. If the owner/operator fails to perform as obligated, the Department can file a claim on the bond for the amount of money necessary to conduct the activity. The bond remains in effect until released by the Department or cancelled by the surety company after 120 days notice. It renews automatically each year.
- **Letter of credit.** This is in essence a "check" written to DEQ by a bank in the amount of the facility's cost estimate. It is considered a cash mechanism, with the Department having sole access to the funds. DEQ holds the "check" until the facility completes the required activities. It is "cashed" if the owner/operator defaults on his obligations. It renews automatically each year.
- **Insurance policy**. This mechanism guarantees that the funds will be available to conduct the required activity when the action period begins. The insurer promises to pay out claims on behalf of the owner/operator to any party approved by the Department. This is known as a "pay on behalf of" policy rather than an indemnity policy that promises to reimburse a party for costs incurred.

The self-insurance types of financial assurance mechanisms include:

- **Captive insurance**. One type of insurance provider is a captive insurance company. The captive insurer is a wholly owned subsidiary of the parent company, with the liability of the insurer, in large measure, dependent on the financial health of the insured.
- **Corporate financial test**. To use this mechanism the company must have either an investment-grade bond rating or meet one of two financial ratios (a profitability ratio or a borrowing capacity ratio). It must also have a tangible net worth and U. S. assets equaling at least $10 million, plus the total environmental costs assured by the test. The owner/operator does not give DEQ any funds.
- **Corporate guarantee**. A guarantor promises to conduct closure, post-closure or corrective action, if the owner/operator fails to do so, or fund a standby trust in the amount of the current cost estimate. The guarantor is not obligated to give any funds to DEQ unless the owner/operator defaults on his regulatory obligations. Acceptable guarantors include the parent corporation, an affiliated corporation or a firm with a substantial

business relationship with the owner/operator. The guarantee is based on audited financial statements.

- **Local government financial test**. This is a self-insurance mechanism by which the locality demonstrates that it has the financial ability to fund the needed action. Under this mechanism, DEQ does not have access to any of the locality's funds. The locality must have either an investment-grade general obligation bond rating or meet two ratios (a liquidity ratio and a debt service ratio). A locality can self-insure its total environment cost so long as the costs do not exceed 43 percent of the locality's annual revenue.
- **Local government guarantee**. This is a self-insurance mechanism by which a locality promises to take action (closure, post-closure or corrective action) if the owner/operator fails to do so, or fund a standby trust in the amount of the current cost estimate. The locality is not obligated to give any funds to DEQ unless the owner/operator defaults in his regulatory obligations. In order to act as a guarantor, the locality must pass the local government financial test based on the locality's audited financial statements.

Two other financial assurance options are available as well:

- **Other mechanisms**. This is a general category in the regulations that allows the DEQ director to consider financial mechanisms other than those specified in the regulation. Such a mechanism must ensure that the funds be available in a timely fashion and must be legally valid, binding and enforceable under Virginia and federal law.
- **Multiple mechanisms.** An owner/operator may demonstrate financial assurance using a combination of mechanisms rather than a single one. However, performance and payment mechanisms cannot be combined for a single facility. For instance, an owner/operator cannot demonstrate for facility closure using both a performance bond and a letter of credit.

B. ACCEPTABILITY OF FINANCIAL ASSURANCE MECHANISMS

Two individuals with experience in the area of financial assurance were invited to discuss the relative merits of the various mechanisms. Ms. Cristine Leavitt, an economist, who for 10 years administered the financial assurance program for the Minnesota Pollution Control Agency, informed the subcommittee that under EPA's financial assurance policy an acceptable mechanism had to exhibit the following performance criteria or characteristics:

- Ensure sufficient funds to cover the costs of closure and post-closure care. Minnesota also requires that owners/operators have up-front coverage for contingencies and corrective action. Minnesota's formula for estimating

these costs is based on worst case costs that might occur at a site. (This requirement is unique to Minnesota);

- Ensure the timely delivery of funds;
- Guarantee the availability of funds;
- Provide flexibility; and
- Be valid and enforceable.

Ms. Leavitt discussed the strengths and weaknesses of each financial assurance mechanism. The strengths of the letter of credit (LOC) include: (i) there is an independent third-party guarantee; (ii) the up-front funding of costs, and (iii) the funds associated with the LOC are easy to collect and administer by the regulatory agency. Its weaknesses are that (i) the collateral requirement may be 100 percent; (ii) the LOC amount is reflected as a contingent liability of the landfill owner/operator, thereby reducing his borrowing capacity, (iii) not all facility owners are eligible, (iv) the original LOC may be required in order to collect, and (v) it must be accompanied by a stand-by trust fund.

The trust fund (TF) mechanism is desirable because it is (i) appealing to small and large facility owners, (ii) administered by an independent third party, and (iii) easy to administer by the regulatory agency. The shortcomings of this mechanism are that (i) the premature closure of the facility may result in inadequate funds being available, (ii) facilities with short operating lives may have large monthly trust fund payments, (iii) interest earned on the TF are taxed, (iv) monies contributed to the TF are counted as an asset, with no return on the investment, and (v) it ties-up money. The way the TF functions is that once a facility closes, the costs of closure are paid and then the owner is eligible for reimbursement for these costs.

There are two different types of bonds available: one guaranteeing payment and the other guaranteeing performance. The advantages of a surety bond (SB) are (i) its reliance on an independent third-party guarantor, (ii) its up-front funding of cost, (iii) the premium is competitive with that of a LOC but the collateral required is usually less, and (iv) the amount of the SB is not reflected as a liability, so it does not reduce the facility owner's borrowing ability. The weaknesses of a SB are that (i) it may not be widely available, (ii) it is more difficult to administer by a regulatory agency, (iii) the original SB may be required to collect money, and (iv) there are concerns regarding fraud and litigation.

Insurance is an inexpensive option for meeting financial assurance requirements, according to Ms. Leavitt, although representatives of local government disagree. Its other advantage is that the insurance amount is not reflected as a liability, so this mechanism does not reduce the owner's ability to borrow. Among insurance's weaknesses as a financial assurance mechanism are (i) its lack of availability, (ii) excess or surplus line carriers are not licensed or

regulated in many states, and (iii) captive insurers are not capitalized by independent third parties and therefore have no assets of their own.

The final mechanisms are the financial test and local government or corporate guarantees. These are seen as forms of self-insurance. They are very affordable options. However, the drawbacks of using these types of mechanisms are that (i) there is no third party guarantor, (ii) if an owner is unable or unwilling to perform the required work, there may be no money available for necessary action, (iii) costs are transferred to future generations in the case of local government closure costs, and (iv) no money is required to be placed in a separate fund or escrowed. Minnesota requires that if this mechanism is used it must be backed-up with some form of collateral.

The Minnesota Pollution Control Agency ranked each financial assurance mechanism using EPA's performance criteria (Appendix C). The most desired mechanism in terms of adequate funds being available, timeliness, guarantee coverage and enforceability is a LOC. The least desirable option is the local government financial test and corporate guarantees. In only one performance area, that of flexibility, is the financial test or guarantee rated the best.

After reviewing Virginia's financial assurance requirements, Ms. Leavitt expressed the following concerns:

- The insurance, financial test, and the government and corporate guarantee mechanisms may fail to meet EPA's performance criteria.
- There is no up-front funding of corrective action costs. No funding is required until 120 days after the owner/operator decides on a remedy.
- Funds may not be available for perpetual care costs (after the 30-year post-closure care period ends), although this is not currently required in Virginia.
- There is no coverage required for property and casualty liabilities.

Mr. Larry Hickman has been involved with the waste management business since 1966, and recently retired as the executive director and chief executive officer for the Solid Waste Association of North America. In providing a historical overview of the regulation of solid waste landfills, he noted that the federal statute does not distinguish between public or privately-owned landfills. All owners/operators have to abide by the same design and operating requirements. Initially, the financial assurance requirements were also the same for both public and private landfills. Unfortunately, according to Mr. Hickman, shortly after the original financial assurance rules were established, changes have occurred that recognize a difference between public and private ownership. According to him, this has resulted in an erosion of the financial assurance requirements; thereby, limiting the ability of the states to ensure that the money is available if some action is necessary. Mr. Hickman favors trust funds as the most effective

mechanism for providing financial assurance. Suggesting that each financial assurance mechanism has its shortcomings, he was particularly concerned with captive insurance. He noted that in the state of Vermont a captive insurer could be established with a line of credit of $100,000 and a surplus in cash of $150,000.

C. COSTS OF FINANCIAL ASSURANCE MECHANISMS

At the request of the subcommittee, DEQ prepared an estimate of the costs of the various assurance mechanisms. These costs, presented as ranges in Table I, are only approximations and do not take into account variables such as the rate of inflation. Generally, the costs of obtaining financial assurance depends on (i) the relationship between the owner/operator and the financial assurance provider, (ii) the financial soundness of the owner/operator, and (iii) the condition and management of the facility to be covered by the mechanism.

Table I - Comparison of the Costs of Obtaining a Solid Waste Financial Assurance Mechanism

MECHANISM TYPE	FACE AMOUNT OF FINANCIAL MECHANISM		
	$500,000	**$1,000,000**	**$3,000,000**
Corporate Financial Test/Guarantee	$0 - $3,000 (cost of CPA report)	$0 - $3,000 (cost of CPA report)	$0 - $3,000 (cost of CPA report)
Local Government Financial Test/Guarantee	$0 - $3,000 (cost of CPA report)	$0 - $3,000 (cost of CPA report)	$0 - $3,000 (cost of CPA report)
Letter of Credit	$3,750-$10,000 (.75% - 2%)	$7,500 - $20,000 (.75% - 2%)	$22,500 - $60,000 (.75% - 2%)
Insurance Policy	$5,000 - $15,000 (1% - 3%)	$10,000 - $30,000 (1% - 3%)	$30,000 - $90,000 (1% - 3%)
Performance Bond with Standby Trust Agreement	$5,750 - $15,750 (1% - 3%) * Includes $750 trust acquisition fee.	$10,750 - $30,750 (1% - 3%) * Includes $750 trust acquisition fee.	$30,750 - $90,750 (1% - 3%) * Includes $750 trust acquisition fee.
Trust Agreement	$2,500 - $4,750 + annual payment	$2,500 - $6,500 + annual payment	$2,500 - 10,500 + annual payment
Certificate of Deposit	$500,000 (one-time price)	$1,000,000 (one-time price)	$3,000,000 (one-time price)

As the table shows, there are no appreciable costs to demonstrate financial assurance using the financial test, if the regulation does not require an

independent certified public account (CPA) report to accompany the financial test. The financial assurance regulation does require a CPA report to accompany the local government financial test in every case; however, some accounting firms do not charge any fee for preparation of the report. The figures for the LOC represent a range of cost to purchase and maintain the LOC from year to year. Estimates of the maintenance fee range from .75 percent to two percent of the face amount of the LOC. The fee is dependent, in large measure, on the length and quality of the relationship between the issuing institution and the owner/operator. The owner/operator must also provide the financial institution with collateral. The figures for the costs of purchasing and maintaining an insurance policy from year to year range from $5,000 to $90,000, depending on the face amount of the policy. The premium typically varies between one to three percent of the total policy amount. It may be lower depending on the financial condition of the owner/operator and the facility's condition and operation. Pricing for insurance policies is similar to that of performance bonds. For performance bonds, the premium costs may vary between one to three percent of the total bond amount. Again, the premium is estimated to be between one and three percent of the total bond amount and it may be lower depending on the financial condition of the owner/operator and the facility's condition and operation. Depending on the financial condition of the owner/operator, the bonding company may also require collateral. According to the regulations, the bond must be accompanied by a standby trust. An approximate fee for obtaining a standby trust is $750, which has been added to the premium fee in the table. In some instances, performance bonds may be less expensive than insurance policies because there is no real transfer of risk. The owner/operator retains the obligation to reimburse the surety for the entire amount of the bond. The figures for trust agreements presented in the table cover only the trustee's fee for managing the money. In addition, the owner/operator must make an annual payment equal to the total cost estimate divided by the number of years in the facility's operating life. The certificate of deposit requires a one-time fee equal to the instrument's face value. There is no annual maintenance fee. This mechanism is not available for sanitary landfills.

D. TYPES OF FINANCIAL ASSURANCE USED BY SOLID WASTE MANAGEMENT FACILITIES IN VIRGINIA.

Data provided to the subcommittee by DEQ indicate that the most common type of financial assurance mechanism used by owners/operators of solid waste management facilities (including landfills) is the financial test. This form of self-insurance is used by 123 of the 225 (55 percent) solid waste management facilities. Table II also provides a breakdown by type of financial assurance for local government and privately-owned/operated municipal solid waste landfills (MSW). For publicly-operated MSWs the percentage using the local government financial test is even greater, with approximately 90 percent of the MSWs demonstrating their financial capacity using this form of self-insurance. In contrast, none of the privately owned/operated MSWs use forms of self-insurance

Table II - Types of Financial Assurance Used

Types of Financial Assurance	All Solid Waste Facilities	MSW Landfills	
		Local Government	Private
Financial Test	123	49	0
Guarantee	11	0	0
Trust Agreement	23	5	1
Surety/ Performance Bond	30	1	7
Letter of Credit	27	1	2
Insurance Policy	4	0	0
Certificate of Deposit	7	NA	NA

such as corporate financial tests for guarantees or captive insurance; although, during the course of the subcommittee's deliberation, one private corporation (Waste Management, Inc.) initially used captive insurance as the financial assurance mechanism for three of its MSWs but subsequently changed to a surety bond.

One of the subcommittee's concerns is whether those localities using the financial test were setting aside sufficient funds to enable them to properly close their facilities when the projected closure times arrived. A recent survey by the Virginia Association of Counties (Appendix D) indicates how much money localities have set-aside for closing their facilities. Comparing the survey data with DEQ figures on closure and post-closure costs (Appendix E), DEQ officials calculated that out of 47 localities that responded to the survey, 10 have not set aside any funds for closure, 22 have set aside some funds, nine have set aside 100 percent of their anticipated closure costs, and six localities did not respond to the set-aside question. One could assume that a number of the localities that did not respond to the question have not as yet made a significant financial commitment. These figures are particularly troubling in the case of several localities that are projected to close their landfills during the next four years, having set aside little or no funds. These localities face the prospect of either a large local general fund appropriation, increasing local taxes, or asking the state for assistance.

E. FORMS OF SELF-INSURANCE AS A MEANS OF FINANCIAL ASSURANCE

While the study resolution requested the subcommittee to evaluate the reliability of each of the various mechanisms to demonstrate financial assurance, it directed the subcommittee to pay particular attention to the use of self-insurance mechanism, including the use of captive insurance companies and the financial test.

1. Captive Insurance

In a competitive environment, a number of facility owners/operators have sought the most flexible and potentially least expensive forms of financial assurance. One of these is a form of self-insurance in which insurance is obtained through a captive corporation. This financial assurance mechanism does not involve an independent third-party guarantee; thereby, raising a question as to whether it provides the level of coverage needed if the facility owner fails to properly operate or close the facility. A captive insurance company is typically a wholly-owned subsidiary formed exclusively to ensure coverage of environmental exposures of the parent company. In a 1993 report on financial assurance titled Financial Assurance Report, the state of Minnesota identified several additional concerns regarding the use of this mechanism to cover landfill liabilities. Among those cited in the Minnesota report and a subsequent article are:

- Captive insurers in most instances operate as surplus line carriers and as such are not licensed or regulated by the state, and do not participate in a state's guarantee fund;
- A captive may not be adequately diversified. The policyholders are usually in the same line of business and the types of liabilities covered are landfill-related;
- A captive's assets are usually in the parent company's stocks, which would not be worth the stated value if the parent company experienced financial problems;
- A captive may not record closure or post-closure expenses as a liability on its balance sheet;
- The cash going into a captive insurer may be transferred immediately back to the parent company, resulting in the captive having no assets of its own; and
- A captive operating in the insurance market may meet form requirements but not meet such substantive requirements as actual transfer of risk. [1]

[1] Financial Assurance Report, Minnesota Pollution Control Agency, November, 1993, excerpts of which are to appear in an article, "Dump Now, Pay Later? Landfill Financial Assurance Mechanisms are Burying the True Costs," Rob Arner and Cristine Leavitt, to be published in MSW Management Magazine.

To ascertain the captive insurance policies of other states in the region, the subcommittee surveyed 14 East Coast states (Attachment F). The results show that six of the 14, either by statute or regulation, expressly prohibit the use of captive insurance as a financial assurance mechanism. Two states (Massachusetts and New Hampshire) do not expressly prohibit its use but, as a matter of policy, do not allow the use of captive insurers. Florida has the most landfills (10) using this type of assurance. The remaining states that allow the use of captive insurers regulate them under their insurance codes as surplus (excess) lines.

The subcommittee invited officials with the State Corporation Commission (SCC) to discuss how captive insurers are regulated in Virginia. Ms. Victoria Savoy, chief financial auditor, Financial Regulation Division of the Bureau of Insurance, discussed the statutory and regulatory requirements for corporations operating as captive insurers or surplus lines in Virginia. Captive insurers are licensed and regulated pursuant to Chapter 11 (§ 38.2-1100 et. seq.) of Title 38.2 of the Code. The statute stipulates that only a corporation organized under the laws of Virginia can be licensed as a captive insurer. This means that by definition it must be a Virginia corporation. Therefore, it would not be possible for a company organized and licensed as a captive insurer in another state to become licensed in Virginia as a captive. That company, if it applied in Virginia, would instead be licensed as a regular property and casualty insurer. There are two types of captives: an association captive and a pure captive. An association captive is a domestic corporation that insures only the risks of the members of an insurance association. No association captive can be licensed until the SCC is satisfied (i) that the captive will generate gross annual premiums of at least $1 million, and (ii) the insurance association has been in existence for at least one year. The one-year requirement may be waived if the SCC is satisfied that the captive will generate gross annual premiums in excess of $100,000 from each member. A pure captive insurer is a domestic corporation that insures only the risks of its parent, subsidiary companies of its parent, and associated and affiliated companies. No pure captive can be licensed until the SCC is satisfied that the captive will generate gross annual premiums of at least $500,000.

Currently, there are no captive insurers licensed in Virginia. Ms. Savoy speculated that based on her agency's review of the "captive" law and discussions with interested parties in the industry, she believes that the Virginia "captive" law offers no particular advantages over the other licensing mechanisms for property and casualty insurers. She pointed out that "captives" are subject to the same minimum net worth requirements that are applicable to regular property and casualty insurers. The Virginia captive insurance law contains a "sweep-in" provision that applies to all of the insurance laws that govern property and casualty insurance to captive insurers. This means that the laws governing investments, risk limitations, reinsurance, holding companies, asset valuation and asset security, reserves, and audited financial reports would apply to captive insurance companies.

According to Ms. Savoy, generally, those states that are characterized as "captive friendly" typically exercise less oversight of captive insurers. For example, Vermont, in contrast to Virginia, requires captive insurers to prepare financial statements in accordance with generally accepted accounting principles, instead of the more conservative insurance accounting principles applicable to regular insurers. Certain types of Vermont "captives" are not subject to any investment restrictions, and unlike Virginia's "sweep-in" provision, the Vermont "captive" law contains what might be considered a "sweep-out" provision. In other words, Vermont captive law is entirely self-contained and no other provision of the Vermont insurance laws apply to captive insurers.

While there are no captive insurers operating in Virginia, one solid waste management company, Waste Management, Inc., uses the Vermont-domiciled captive insurance company, National Guaranty Insurance Company. The company operates in Virginia as an approved surplus line insurer. By definition, surplus lines insurers are either domiciled in another United States jurisdiction, or domiciled in a jurisdiction outside of the United States. Surplus lines acquire approval to do business in Virginia under § 38.2-4811. The statute stipulates that to acquire approval an insurer must file an application with the SCC, which provides (i) satisfactory evidence of good repute and financial integrity, and (ii) proof that the insurer meets the applicable financial standards specified in the statute. At the present time, surplus lines are subject to a minimum net worth requirement of not less than $15 million, although the statute gives the Bureau of Insurance the discretionary authority to approve a company possessing less than $15 million upon an "affirmative finding of acceptability," subject to an absolute minimum of $4.5 million. The Bureau would be required to base such a finding on a range of factors that include quality of management, financial strength of any parent company, positive investment and income trends, and company record and reputation within the industry. Surplus lines applicants are subject to a far less rigorous review process than insurers seeking full licensure in Virginia. However, the threshold for rescinding approval is lower than for revoking a company's license. Essentially, the Bureau may simply declare a surplus lines insurer ineligible if at any time it believes that the insurer is in unsound financial condition, fails to adequately honor its policyholder obligations, or has willfully violated the laws of Virginia.

Ms. Savoy indicated that surplus lines insurers provide a legitimate market option but, because they are "unlicensed" except in their domiciliary jurisdictions, they carry an inherently greater degree of risk for the policyholder than do licensed insurers. In a letter submitted to the subcommittee, she described the limited regulatory role her agency plays with respect to surplus lines carriers, as follows:

- Licensed insurers must file copies of their statutory examination reports, prepared by their domiciliary states, with the Bureau of Insurance. The

Bureau may also conduct its own examination of a licensed insurer whenever it considers it "expedient" for the protection of Virginia policyholders (§ 38.2-1317). It has not been the practice of the Bureau of Insurance to collect such reports or to conduct examinations on surplus lines insurers.

- Licensed insurers are subject to general investment standards under Chapter 14 of Title 38.2. The investment laws of Chapter 14 do not apply to surplus lines insurers. The Bureau does not scrutinize the liquidity or the quality of the investments of a surplus lines insurer to the degree it does licensed insurers.
- Unlike other insurers seeking a license, surplus lines applicants are generally not required to meet specific profitability (i.e., track record) requirements. Furthermore, it is not necessary for a surplus lines applicant to have already been in operation for a period of time prior to becoming approved in Virginia.
- Surplus lines insurers are not required to file their rates and policy forms in Virginia. Therefore, the policyholder has no assurance that a policy purchased from a surplus lines insurer is consistent with the forms filed by licensed insurers and specifically approved for use in Virginia.
- A licensed insurer must, as a condition for receiving and maintaining its license, secure a certificate of authority in Virginia pursuant to Title 13.1 of the Code of Virginia. This action requires the insurer to designate an acceptable person as agent for service of process. A surplus lines insurer is not subject to this requirement, which may hinder a policyholder's pursuit of legal action against the insurer.
- Unlike most licensed property and casualty insurers, surplus lines are exempt from membership in the Virginia Property and Casualty Insurance Guaranty Association. Thus, there is no Guaranty Fund protection for policyholders of a surplus lines insurer in the event of its insolvency.

2. Local Government Financial Test

Virginia's financial assurance regulations for landfills owned and operated by local governments went into effect on January 7, 1998. They are similar to EPA's Regulations for Municipal Solid Waste Landfills, which became effective in 1997. Both the federal and state regulations were developed with the involvement of local governments and other interested parties. One of the chief provisions of the financial assurance regulations for local governments is the use of the financial test as an acceptable mechanism. In Virginia, as noted previously, the financial test is the mechanism typically used by a local government to demonstrate its financial capacity to properly operate, close and provide 30 years of post-closure care for its solid waste management facility.

The financial test can be satisfied if the locality has outstanding investment-grade general obligation bonds rated as Aaa, Aa, A or Baa as issued by Moody's, or AAA, AA, A or BBB as issued by Standard and Poor's. If the locality does not have outstanding bonds but has legal authority to issue them, the financial test can be satisfied through a shadow bond rating, which involves an analysis of basic financial conditions. If the locality cannot satisfy either criterion then the test may be satisfied by meeting the following two financial ratios: (i) a ratio of cash plus marketable securities to total expenditures greater than or equal to .05 and (ii) a ratio of annual debt service to total expenditures less than or equal to .20. The locality does not qualify for the financial test if it (i) is currently in default of any outstanding general obligation bonds, (ii) has any outstanding general obligation bonds rated below investment grade, (iii) has operated at a deficit equal to 5 percent or more of total annual revenue in each of the past two fiscal years, or (iv) has received an adverse or qualified opinion from an independent CPA or the Auditor of Public Accounts. In addition, the costs for closure, post-closure and corrective action may be covered using the financial test as long as the cumulative costs of these activities do not exceed 43 percent of the local government's annual revenues.

The locality's financial situations are validated through certain recordkeeping and reporting requirements. The facility's operating record must contain the following:

- A letter signed by the local government's chief financial officer that lists all current estimates covered by the financial test and evidence showing the locality meets the conditions of the financial test;
- The local government's independently audited year-end financial statements for the latest fiscal year, including the unqualified opinion of the auditor who must be an independent CPA or an appropriate state agency that conducts equivalent comprehensive audits;
- A report to the local government from an independent CPA or the Auditor of Public Accounts that proper procedures were followed when calculating financial ratios; and
- A copy of a comprehensive annual financial report that incorporates the cost of closure, post-closure and corrective action.

The requirements of the financial test have to be met by the local governments at the close of each fiscal year. If the local government no longer meets the requirements of the financial test, it must, within 210 days of the close of the fiscal year, obtain an alternative financial assurance mechanism. If the director of DEQ believes that the requirements of the financial test are not being met, he may require additional reports of the local government's financial condition at any time. Based on the extensive nature of these requirements for documenting and reporting a locality's financial condition, Mr. Larry Land, a representative of VACO, suggested to the subcommittee that the use of the local government

financial test was an entirely appropriate financial assurance mechanism; noting that, unlike a private corporation, a locality does not have the option of declaring bankruptcy and abandoning its responsibility for the proper operation and closure of its landfill. Mr. Land called attention to the fact that EPA, in its rule-making commentary on financial assurance, endorsed the use of the financial test by local governments. EPA's rationale for approving the use local government financial test is the belief that:

> *. . . some local governments possess sufficient financial capacity and fiscal responsibility to satisfy the objectives of financial assurance without a third party mechanism. The test's financial ratios and bonds rating criterion are intended to ensure that a local government is financially capable of meeting its assured obligations;*

and

> *(The financial test) (. . . relies on local government bond ratings as a measure of a local government's financial capability because such bond ratings are based upon a comprehensive evaluation of a local government's financial condition.)*

EPA's commentary concludes by noting that "unlike corporations, local governments have taxing authority and are therefore less likely to become insolvent."

IV. FINDINGS AND RECOMMENDATIONS

The financial assurance criteria of Subtitle D of the federal Resource Conservation and Recovery Act (RCRA) require landfill owners/operators to demonstrate their ability to "ensure that the funds necessary to meet the costs of closure, post-closure, and corrective action for known releases will be available whenever they are needed." [2] In Virginia, such financial assurance criteria apply not only to municipal solid waste landfills but also to such other solid waste management facilities as incinerators, industrial landfills, energy recovery and materials recovery facilities, and yard waste composting facilities. Having received and considered the testimony of a wide range of experts, the subcommittee is concerned that certain forms of self-insurance, specifically, captive and surplus lines insurance, and the local government financial test may not provide the necessary financial resources when they are needed. Because these mechanisms are not associated with an independent third-party guarantee, there is a question as to whether these mechanisms offer the level of coverage needed in the event that a facility owner/operator fails to fulfill his legal responsibilities. Those using these types of mechanisms simply have to demonstrate and pledge their financial health on behalf of the facility owner in order to meet the financial assurance

[2] Financial Assurance Criteria, Subpart G, Part 258.74, 40 CFR Parts 257 and 258, USEPA, October 1991.

requirements. As testimony indicated, these options are chosen by both public and private solid waste management facility owners/operators because they can be easily satisfied and allows them flexibility in determining when and how the landfill costs should be paid.

Since financial assurance mechanisms are the "last line of defense," it is crucial that such mechanisms be able to guaranty coverage of facility costs. The subcommittee believes that the use of self-insurance option's whether by a corporation or a local government, may not be adequate to cover long-term costs and related environmental problems. Without the use of third-party guarantees, it may become the public's responsibility to pay the costs when a facility owner/operator is unable or unwilling to perform his obligations.

The subcommittee's concern with whether the current financial assurance mechanisms are appropriate is apparently shared by DEQ. Director Treacy informed the subcommittee that his agency is in the initial stage of reviewing the current financial assurance mechanisms. The review will examine the appropriateness of the various mechanisms, including the (i) adequacy of the local government and corporate financial test and guarantees, (ii) suitability of landfill insurance policies (captive insurance), (iii) suitability of the trust pay-in provision, and (iv) need for stand-by trust agreements for all third-part financial mechanisms. The review will be conducted pursuant to the Administrative Process Act. It is anticipated that final approval by the Virginia Waste Management Board to any changes in the financial assurance regulations will not become effective until late 2001.

The question facing the subcommittee was whether to wait to see what, if any, changes might occur through the regulatory process, or to provide more specific guidance to the agency by statutorily revising the current financial assurance policy. While there is some sentiment for allowing the agency to conduct a review, a majority of the members of the subcommittee believe the questions involved rise to the level of policy considerations, and as such, it is the legislature that should establish the financial assurance policy. By giving DEQ the necessary statutory guidance, any necessary changes could be accomplished in a more timely fashion.

The subcommittee's recommendations are aimed at limiting the use of the self-insurance as the primary form of financial assurance. Although there are currently no owners/operators of commercial solid waste facilities that use captive insurers or surplus line carriers to meet their financial assurance requirements, these options remain acceptable mechanisms. Therefore, to avoid the use of such mechanisms in the future the subcommittee recommends:

Recommendation #1: *That the General Assembly enact legislation that prohibits the use of captive insurance or approved surplus lines as acceptable mechanisms to demonstrate financial assurance. (Appendix G)*

The subcommittee also believes that significant changes should be made to the Commonwealth's financial assurance policies as provided for in § 10.1-1014 and the related regulations. Any proposal to change the current policy should include the following provisions:

1. If an owner/operator of a solid waste management facility uses a form of self-insurance (financial test, guarantee or captive insurance) to demonstrate financial viability, it would have to be used in combination with the establishment of an escrow account. The determination of how much money would have to be deposited in an escrow account would be determined by DEQ and the VWMB. However, if a facility owner/operator demonstrated financial assurance using a third-party instrument or guarantor such as a surety bond, certificate of deposit, letter of credit, trust fund agreement, securities, or licensed commercial insurance, he would not be required to deposit funds into an escrow account.

2. The financial assurance requirement should be expanded to cover all necessary remedial actions (contingencies) taken during the life of the facility and the post-closure care period. Currently, financial assurance is required for corrective action, which is defined by DEQ as incidents involving groundwater or surface water contamination. Instead of simply treating "contingencies" such as fire, explosions, or erosion, which result from the improper operation of the facility, as enforcement actions, such incidents should be covered under the financial assurance requirements, as is the case for corrective action. However, unlike the current policy, financial assurance should have to be demonstrated for both corrective and remedial actions (contingencies) as part of the initial permitting process, rather than 120 days after the incident occurs.

3. Owners/operators of facilities should be required to secure and maintain liability coverage for claims arising from injuries to other parties, including bodily injury or damage to the property of others. This third-party liability had been required previously by the state but was removed when such coverage was not mandated by the federal government.

Therefore, the subcommittee recommends:

Recommendation #2: *That the General Assembly enact legislation that amends the current financial assurance statute to require (i) an escrow account be established by an owner/operator of a facility who demonstrates his financial viability through the use of a self-insurance mechanism, (ii)*

financial assurance be demonstrated for corrective action and contingencies at the time of permit consideration, and (iii) liability coverage for damage or injury to third parties. (Appendix H)

With the adoption of these two recommendations, the subcommittee believes that Virginia will have greater assurance that the appropriate level of financial resources will be available to meet the operational and long-term care needs of solid waste management facilities in Virginia.

Respectfully submitted,

Delegate James H. Dillard, Chairman
Delegate R. Creigh Deeds, Vice Chairman
Senator William T. Bolling
Senator Emmett W. Hanger, Jr.
Senator Stephen H. Martin
Delegate David B. Albo
Delegate A. Donald McEachin
Mr. John S. Hadfield, Citizen Member
Ms. Marina Liacouras Phillips, Citizen Member
Ms. Susan Taylor Hanson, Citizen Member

V. APPENDICES

ENROLLED

HOUSE JOINT RESOLUTION NO. 585

Establishing a joint subcommittee to examine the financial assurance requirements for solid waste management facilities.

Agreed to by the House of Delegates, February 7, 1999
Agreed to by the Senate, February 23, 1999

WHEREAS, regulations promulgated by the Virginia Waste Management Board require that owners or operators of solid waste management facilities demonstrate financial assurance for the costs of closure and postclosure care and for corrective action for known releases at their facilities; and

WHEREAS, these regulations should help ensure that funds will be made available to the Commonwealth of Virginia to cover the costs of closure and postclosure care and corrective action in the event that owners or operators of solid waste management facilities are unable or unwilling to pay those costs; and

WHEREAS, these regulations allow owners or operators to use a variety of mechanisms to demonstrate required amounts of financial assurance including trust funds, surety bonds, letters of credit, insurance, financial tests, and corporate guarantees; and

WHEREAS, it appears that some owners or operators of solid waste management facilities have submitted to the Department of Environmental Quality certificates of insurance from pure captive insurance companies, wholly owned insurance subsidiaries that are formed to insure the risks of their parent organizations, to demonstrate financial assurance for closure and postclosure care obligations at their facilities; and

WHEREAS, concern has been raised that the use of pure captive insurance companies might not adequately accomplish transfer of risk because they are held within the same corporate families and share common pools of assets with the companies for which they underwrite coverage; and

WHEREAS, eligibility to use financial test and corporate guarantee mechanisms is based on the ability of owners or operators to demonstrate, on an annual basis, adherence to certain financial criteria; and

WHEREAS, those using the financial test or corporate guarantee might not set aside funds in anticipation of closure, postclosure, and corrective action costs and might not arrange for the payment of such costs by a third party in the event that an owner or operator is unable or unwilling to pay those costs; and

WHEREAS, the use of the financial test and corporate guarantee mechanisms may create an inequitable environment for fair competition between large and small solid waste management businesses; and

WHEREAS, the potential for severe or sudden financial distress on the part of owners or operators raises questions regarding the reliability of pure captive insurance companies, financial tests and corporate guarantees to provide the Commonwealth with funds to cover the costs of closure and postclosure care and corrective action; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That a joint subcommittee be established to examine the financial assurance requirements for solid waste management facilities. The joint subcommittee shall be composed of 11 members, which shall include 7 legislative members and 4 nonlegislative citizen members as follows: four members of the House of Delegates to be appointed by the Speaker of the House according to Rule 16 of the Rules of the House of Delegates; three members of the Senate to be appointed by the Senate Committee on Privileges and Elections; two citizens to be appointed by the Speaker of the House; and two citizens to be appointed by the Senate Committee on Privileges and Elections.

In conducting its study, the joint subcommittee shall evaluate the reliability of each of the various mechanisms that owners or operators of solid waste management facilities in Virginia may use to demonstrate financial assurance, with particular attention to the use of "self-assurance" mechanisms, including insurance coverage provided by pure captive insurance companies and financial tests and corporate guarantees. The joint subcommittee shall make recommendations and provide options for regulatory or legislative actions that would improve the reliability of financial assurance mechanisms.

The direct costs of this study shall not exceed $5,800.

The Division of Legislative Services shall provide staff support for the study. Technical assistance shall be provided by the Department of Environmental Quality. All agencies of the Commonwealth shall provide assistance to the joint subcommittee, upon request.

The joint subcommittee shall complete its work in time to submit its findings and recommendations to the Governor and the 2000 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Implementation of this resolution is subject to subsequent approval and certification by the Joint Rules Committee. The Committee may withhold expenditures or delay the period for the conduct of the study.

§ 10.1-1410. Financial responsibility for abandoned facilities; penalties.

A. The Board shall promulgate regulations which ensure that if a facility for the disposal or treatment of solid waste is abandoned, the costs associated with protecting the public health and safety from the consequences of such abandonment may be recovered from the person abandoning the facility.

B. The regulations may include bonding requirements, the creation of a trust fund to be maintained within the Department, self-insurance, other forms of commercial insurance, or such other mechanism as the Department may deem appropriate. Regulations governing the amount thereof shall take into consideration the potential for contamination and injury by the solid waste, the cost of disposal of the solid waste and the cost of restoring the facility to a safe condition. Any bonding requirements shall include a provision authorizing the use of personal bonds or other similar surety deemed sufficient to provide the protections specified in subsection A upon a finding by the Director that commercial insurance or surety bond cannot be obtained in the voluntary market due to circumstances beyond the control of the permit holder.

C. No state governmental agency shall be required to comply with such regulations.

D. Forfeiture of any financial obligation imposed pursuant to this section shall not relieve any holder of a permit issued pursuant to the provisions of this article of any other legal obligations for the consequences of abandonment of any facility.

E. Any funds forfeited prior to July 1, 1995, pursuant to this section and the regulations of the Board shall be paid over to the county, city or town in which the abandoned facility is located. The county, city or town in which the facility is located shall expend forfeited funds as necessary to restore and maintain the facility in a safe condition.

F. Any funds forfeited on or after July 1, 1995, pursuant to this section and the regulations of the Board shall be paid over to the Director. The Director shall then expend forfeited funds as necessary solely to restore and maintain the facility in a safe condition. Nothing in this section shall require the Director to expend funds from any other source to carry out the activities contemplated under this subsection.

G. Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be liable to the Commonwealth and any political subdivision for the costs incurred in abating, controlling, preventing, removing, or containing such harm or threat.

Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be guilty of a Class 4 felony.

Rating of FA Mechanisms

MPCA

Appendix C

Financial Assurance Mechanism Ranking Against EPA Performance Criteria

Mechanism Type Criteria Ranking (1 -best, 5 -worst)	Adequate Funds	Timeliness	Guarantee Coverage	Flexibility	Enforce-ability
1	LC	LC	LC	LOGO	LC
2	SB	TF	SB	TF	TF
3	TF	SB	TF	SB	SB
4	IN	IN	IN	IN	IN
5	LOGO	LOGO	LOGO	LC	LOGO

LC - Letter of Credit
TF - Trust Fund
SB - Surety Bond
IN - Insurance
LOGO - Local Government Financial Test

Appendix D

COUNTIES	FA Mechanism	Type of cell now operated	Set Aside	Amount	Closure costs (acc. to DEQ)	Anticipated closing year	Sinking	Bond	Other	Comments
Accomack	FT	pre sub d	no		$3,152,168	2018				
Albemarle	TA (Auth)	pre sub D	yes	$5,600,000	$6,630,000					Facility is actually run by an authority with cash available.
Amherst	FT	Sub D	N/A		$779,619					
Appomattox	FT	pre sub d	N/A		$632,307	2002				
Augusta	FT	pre sub d	yes	$3,776,171	$8,733,029	2002	x			Fund balance annual allocation. Considering waste disposal fee.
Bedford	FT	Sub D	yes	$2,000,000	$2,973,800	2008: current cell & 2074: entirety			x	Setting aside funds from tipping fee revenues ... given that the landfill will continue to expand for 50-75 years, a payment schedule has not been developed.
Botetourt	FT	Sub D	no		$6,488,272					Operated "1205" facility but closed it about 18 months ago. Currently operation Subtitle D facility.
Campbell	FT	Sub D	yes	$1,800,000	$6,278,680				x	Each year the county budgets approximately $1.8 million for unexpected landfill expenses.
Carroll	FT	Sub D	N/A		Not available					Facility operated cooperatively with Grayson County and City of Galax.
Caroline	FT	pre sub d	yes	$1,500,000	$2,058,533	1999			x	Landfill closure is included in capital improvements budget for FY 2000-2001 as approved. Closure to be funded by Rural Development loan. Post closure care will be funded annually be O&M budget.
Fairfax	FT	Sub D	yes	$50,570,000	$43,000,000	2025			x	Part of Capital Improvement Plan. Money from closure & post closure care collected from each ton received to fully fund the anticipated capital program established by the county.
Fauquier	FT	pre sub d	yes	$1,200,000	$3,310,000	2002			x	Local government investment pool (LGIP) in Richmond. County deposits $125,000 per year into LGIP account and earns 5.65% interest.

Counties	FA Mechanism	Type of cell. now operated	Set Aside	Amount	Closure costs, (acc. to DEQ)	Anticipated closing year	Sinking	Bond	Other	Comments
Fluvanna	FT	pre sub d	N/A		$1,154,624					
Franklin	FT	pre sub d	yes	$1,397,948	$1,749,999	2003			x	Capital reserve designated general fund set aside. Have a five year Capital Improvement Plan.
Frederick	TA	Sub D	yes	$3,300,000	$7,392,606	2025			x	Utilize trust mechanism with payment plan determined by DEQ. County is ahead of payment schedule. Facility serves multiple jurisdictions.
Greensville	FT	pre sub d	yes	$283,194	$3,284,523		x			County has planned schedule of payments
Hanover	FT	pre sub d	yes	$3,410,091	$7,760,720	2016			x	Capital improvement fund. Post closure - annual budget payment.
Loudoun	FT	pre sub d (88 st regs)	yes	$2,200,000	$15,271,904				x	Post closure care is part of general fund budget subject to annual appropriation. They are not included in the landfill operations budget but as separate budgets in the Office of SW management.
Louisa	FT	pre sub d	yes	$1,501,240	$1,501,240	2004			x	By resolution, designated general fund balance
Lunenburg	FT	pre sub d	yes	$150,000	$659,090	2015	x			Have deposited $50,000 per year.
Mecklenburg	FT	pre sub d	yes	$509,102	$1,962,731	2010	x			Sinking fund from tipping fees increased in 1997.
Montgomery	TA (auth)	pre sub D	yes	$1,840,000	$3,942,458	2000			x	Facility operated by authority. Trust funds at bank. Have funds to currently cover costs.
Northampton	FT	pre sub d	yes	$50,000	$5,374,063				x	Money is part of the general fund
Nottoway	FT	Sub D	N/A		$4,770,928					
Orange	FT	pre sub d	no		$2,039,337	2015				County presently carries authorization by referendum to issue additional bonds.
Pittsylvania	FT	Sub D	no		$2,982,330	2004: partial & 2026: phase II				County will review setting up a sinking fund FY 2000-2001.

Counties	FA Mechanism	Type of cell now operated	Set Aside	Amount	Closure costs (acc. to DEQ)	Anticipated closing year	Sinking	Bond	Other	Comments
Prince Edward	FT	Sub D	no		$2,006,837	2015				The county carries sufficient general funds to cover closure and post closure costs.
Prince William	FT	Sub D	yes	$4,376,560	Not available	2024: partial & 2062 entire site			x	Money is set aside into restricted cash accounts based upon the landfill capacity used each year. Amount determined by engineer estimates consistent with GASB statement #18.
Pulaski	TA (auth)	Sub D	yes		$1,564,000					
Rappahannock	FT	Sub D	yes	$275,000	$2,551,200	2006			x	Budgeted as part of the Capital Improvement Plan according to a planned schedule of payments.
Roanoke	TA (Auth)	Sub D	yes	$9,109,120	$6,036,071	2019			x	Roanoke Valley Reg Authority has a planned capital and closure plan. Money included as part of tipping rate. Will be ongoing closures as cells are closed.
Rockbridge	FT	pre sub D	yes	$1,000,000	$2,307,351				x	Setting aside $250,000 per year for closure & post closure. Remaining 8 years of landfill. Expect to have $3 million available by then.
Rockingham	FT	pre sub D	no	$2,000,000	$6,457,247	2000				Set aside form tipping fees will be utilized for both construction of a new lined landfill ($3.6 million) and closure of 1205 l.f. ($2.1 million) Difference will be borrowed from general fund and repaid in 6 years.
Scott	FT	pre sub D	no		$512,715	2015				County utilizes financial ratio test. Separate fund currently under study.
Shenandoah	FT	pre sub D	yes	$263,864	$6,330,873	ASAP	x			General fund appropriations with tax increase if necessary. County will move into Sub D cell when permit is approved by DEQ.
Spotsylvania	FT	Sub D	no		$1,405,196	2025				
Stafford	FT	pre sub D	N/A		$2,556,209	2003				(Facility in this county operated by regional board.)
Tazewell	FT	Sub D	yes	$839,171	$12,965,385	current cell: 2002, entirety: 2049				Reserve account in landfill enterprise fund. An annual accrual is made each year based on cost and time period estimates.

Counties	FA Mechanism	Type of cell now operated	Set Aside	Amount	Closure costs (acc. to DEQ)	Anticipated closing year	Sinking	Bond	Other	Comments
Wise	FT	pre sub D (88 st regs)	yes	$345,600	Not available	2029	x			Have started to develop a schedule of payments where deposits of $171,396 will be made annually through 2027 when fund is will have an estimated value of $11.36 million.
SPSA	(Auth)	pre sub D	yes	$3,200,000	Not available	2018	x			Have sinking fund with annual contributions.
CITIES										
Bedford	SB	Sub D	yes	$331,174	$2,615,909	2002			x	Funds held in separate investment account at LGIP.
Bristol (Landfill)	FT	pre sub D	no		$6,910,858					Derived from funds in the solid waste enterprise fund.
Bristol (Balefill)	FT	Sub D								
Covington	FT	pre sub d	yes	$500,000	$2,657,087	2000			x	Facility operated in cooperation with Alleghany County.
S. Boston	FT	pre sub d	yes	$194,105	$1,021,913	2000	x			Landfill closure fee (monthly) for all residential and commercial water/sewer customers. $30 ton tipping fee for commercial haulers to landfill.
Lynchburg	FT	Sub D	yes	$2,292,156	$4,770,926	current cell: 2001, entirety: 2013			x	Each year engineering cost estimates are performed to determine the appropriate amount of funds needed to close and provide post closure care. Funds are placed into the designated account for this purpose.
Martinsville	FT	pre sub d	no		$10,158,026	2005				Revenue bond.
Waynesboro	FT	pre sub d	yes	$2,131,000	$3,336,904	2000			x	Reserved according to city's capital improvement plan

Appendix E

FINANCIAL ASSURANCE STATUS OF ACTIVE MSW LANDFILLS

FACILITY NAME	PERMIT	CLOSURE COST	PCLOSURE COST	FUNDS SET ASIDE (per VACO)	ANTICIPATED CLOSURE (per VACO)	MECH
ACCOMACK CO LF #2	461	1,841,717	1,674,926	No	2018	FT
ACCOMACK CO LF-BOBTOWN SOUTH	91	2,372,244	1,744,111			FT
AMHERST COUNTY SLF	563	2,909,906	2,819,000	N/A	N/A	FT
APPOMATTOX CO SLF	86	732,086	3,853,883	N/A	2002	FT
*ATLANTIC WASTE	562	3,613,021	1,496,440	N/A	N/A	BOND
AUGUSTA CO SVC AUTH	21	2,640,377	831,285	3,776,171	2002	FT
BEDFORD COUNTY SLF	560	1,386,200	1,587,600	2,000,000	2008; 2074	FT
*BIG BETHEL LANDFILL	580	7,866,097	4,424,680	N/A	N/A	BOND
BOTETOURT COUNTY LANDFILL	582	4,202,601	3,252,693	N/A	N/A	FT
BRISTOL LANDFILL	500	1,382,430	1,454,761	No	N/A	FT
*BRUNSWICK WST MGMT FACILITY	583	6,176,500	5,028,000	N/A	N/A	BOND
CAMPBELL CO LF	285	2,421,273	3,748,294	1,800,000	N/A	FT
CAROLINE CO SLF	182	644,585	3,432,000	1,500,000	2000	FT
CARROLL-GRAYSON-GALAX REGIONAL LANDFILL	508	1,454,535	2,066,016	N/A	N/A	FT
CITY OF BEDFOD – HYLTON SITE	569	872,373	874,892	Yes	2002	BOND
COVINGTON-PETERS MTN SLF	178	1,015,247	1,668,392	500,000	2000	FT
FAQUIER CO – CORAL FARMS	575	625,000	447,500		N/A	FT
FAUQUIER CO LF	149	8,376,030	3,762,360	1,200,000	2002	FT
FLUVANNA CO SLF	429	434,519	686,242	N/A	N/A	FT
FRANKLIN CO LF	72	700,000	1,049,999	1,397,948	N/A	FT
FREDERICK CO SLF	529	7,614,384	7,614,384	3,300,000	2025	TA
GREENSVILLE CO LF	405	1,919,931	1,522,199	283,194	N/A	FT
HALIFAX CO SLF	92	1,197,358	1,695,136	N/A	N/A	FT
HANOVER CO LF – 301	314	5,193,088	2,567,632	3,410,091	2002	FT
I-95 LF (FAIRFAX CO)	103	15,667,500	28,332,500	50,570,000	2025	FT
INDEPENDENT HILL LF-PR WILLIAM	29	7,854,378	8,269,701	4,376,560	2024; 2062	FT
IVY SANITARY LANDFILL	125	2,938,088	3,609,844	N/A		TA
*KING & QUEEN SLF	554	9,418,239	3,546,528	N/A	N/A	BOND
*KING GEORGE LANDFILL	586	473,914	5,117,520	N/A	N/A	BOND

FACILITY NAME	PERMIT	CLOSURE COST	PCLOSURE COST	FUNDS SET ASIDE (per VACO)	ANTICIPATED CLOSURE (per VACO)	MECH
LIVINGSTON LANDFILL NO. 2 (SPOTSYLVANIA)	547	857,904	2,019,940	1,405,196	2025	FT
LOUDOUN CO SLF	1	2,560,000	444,100	2,200,000	N/A	FT
LOUISA CO SLF	194	612,940	888,300	1,501,240	2004	FT
LUNENBURG CO SLF	227	427,712	121,530	150,000	2015	FT
LYNCHBURG SANITARY LANDFILL	558	7,000,000	Included in closure est	2,292,156	2001; 2013	FT
MADISON CO SLF	442	340,983	860,581	N/A	N/A	FT
*MAPLEWOOD SLF	540	3,266,308	6,682,465	N/A	N/A	BOND
MARTINSVILLE LF	49	3,150,000	1,784,760	No	N/A	FT
MECKLENBURG CO LF	14	1,000,406	962,325	509,102	2010	FT
MID-COUNTY LF-MONTGOMERY CO	397	2,076,631	379,399	1,840,000	2000	TA
*MIDDLE PENINSULA (Gloucester)	572	10,035,763	6,390,010	N/A	N/A	BOND
NORTHAMPTON CO LF-OYSTER SITE	507	2,029,063	3,345,000	50,000	N/A	FT
NOTTOWAY CO SLF	304	826,972	1,843,156	N/A	N/A	FT
NRRA SOLID WASTE FACILITY	548	820,488	787,586	Yes	N/A	TA
*OLD DOMINION SLF	553	4,282,066	4,100,528	N/A	N/A	BOND
ORANGE CO SLF	90	628,840	1,410,497	N/A	2015	FT
PAGE CO SLF	89	612,000	3,099,000	N/A	N/A	LOC
PETERSBURG CITY LF	228	3,652,574	4,804,539	N/A	N/A	FT
PITTSYLVANIA COUNTY SANITARY LANDFILL	571	1,320,780	1,819,960	No	2015	FT
PRINCE EDWARD COUNTY SANITARY LANDFILL	584	420,193	1,586,444	No	2015	FT
RAPPAHANNOCK CO LF	520	2,216,532	334,668		2006	FT
RAPPAHANOCK REGIONAL SLF	589	419,6333	962,512	275,000	2006	FT
ROCKBRIDGE CO SLF-BUENA VISTA	75	1,704,000	720,000	1,000,000	N/A	FT
ROCKINGHAM CO SLF	62	2,048,100	1,971,600	2,000,000	2000	FT
SCOTT CO LF	23	294,709	218,006	N/A	2015	FT
SHENANDOAH CO SLF	469	1,242,498	5,088,575	2,63,864	ASAP	FT
*SHOOSMITH SANITARY LANDFILL	587	1,894,997	1,822141	N/A	N/A	TA
ROANOKE VAL RES AUTH. (SMITH GAP REGIONAL SLF)	555	1,412,042	522,906	9,109,120	2019	FT

FACILITY NAME	PERMIT	CLOSURE COST	PCLOSURE COST	FUNDS SET ASIDE (per VACO)	ANTICIPATED CLOSURE (per VACO)	MECH
SPRINGFIELD ROAD LANDFILL (HENRICO)	545	2,790,708	4,379,118	N/A	N/A	FT
SPSA REGIONAL LF	417	9,154,171	3,224,110	3,200,000	2018	TA
STAFFORD CO SLF	74	1,044,197	1,512,012	N/A	2003	FT
TAZEWELL COUNTY SLF	564	8,134,785	4,30,600	839,171	2002;2049	FT
*CHARLES CITY LANDFILL	531	10,130,129	Included in Closure est.	N/A	N/A	BOND
VA BEACH LF #2-MT TRSHMR II	398	5,507,000	5,464,500	N/A	N/A	FT
WAYNESBORO CITY LF MSW BALEFILL	204	1,614,349	1,722,555	2,131,000	2000	FT
WISE CO LF	513	9,706,350	1,658,500	345,600	2029	FT

* Denotes privately owned/operated landfill

Appendix F

Use of Captive Insurance

State	Self Insurance allowed?	Legal Citation	Comments
Connecticut	Yes - 1	none-Federal Regs. were adopted by CT in 1985 (40 CFR 264)	This landfill is no longer active; it has been closed for several years. The owner was Waste Management Co. Closure cost data is gone, but was estimated to be $8 - $10,000,000. Current post-closure monitoring is $2,300,000.
Delaware	No	Sec. 4A-11.B (reg.)	Has three municipal landfills, no commerical
Florida	Yes - 10	Has to satisfy state insurance regs.	See footnote 1 for landfill capacity and closure costs
Georgia	Yes		
Maine	No	06-096 CMR 400.11.A(4) (e)	Only allows trust fund, surety bond or letter of credit
Maryland	Law is mute on it	Environmental article, Sec. 9-211 and 211.1	Is in process of changing law to mimic Fed. Have one commercial landfill (does not use captive insurer) - state allows surety bond, letter of credit, other state approved financing.
Massachusetts	No	310 CMR 19.051	Regulations don't allow it, but don't profit directly either--Authorizes use of trust agreement, surety, letter of credit, insurance policy. Have been lobbied over several years to allow captive ins, but agency has not.
New Hampshire	No	Env-Wm 3103.03 (2)	Wording specifically excludes affiliated captive insurance company
New Jersey	No		State mandates that companies create escrow accounts to cover cost of closure. State has complete control over release of money. Waste Management Inc. tried to self-insure, but state rejected offer

Use of Captive Insurance

New York	Nothing in law precludes it	360, sec. 2.19	Self-insurance has not been a problem for them. Private landfills use letters of credit, trust funds or surety bonds.
North Carolina	Yes - 1	Insurance code does not prohibit (silent) but must meet req.s as surplus line carrier (Ch. 58, Art. 21 of Insurance Code	Only one facility, Piedmont Sanitary Landfill (WM), is currently self-insured. Total capacity is 65 acres, but has closed 24 acres. The remaining capacity is 41 acres with estimated closure costs of $5,406,615. The total assurance is $8,456,597.
Pennsylvania	No		Bonding regulations govern private companies - state holds the bonds
Rhode Island	Yes, but no in practice	DEM-OWM-SWO 1-97 Appx. D	The regulations don't prohibit it, but it hasn't come up as an issue yet. If it did, however, they have other procedures by which to refuse approval for self-insurance.
South Carolina	Yes -4	Ins. Comm. Rules	There is no regulatory citation, which prevent captive insurance companies from providing financial assurance coverage in SC, as long as the insurance company meets the rules and requirements of the SC Insurance Commission. For Capacity and Closure costs, see footnote 2 below.

Use of Captive Insurance

1. Facility	Closing Cost	Capacity	Insurance Co.
BFI-Cedar Trial	$2,847,177		Global Indemnity
Waste Mgt. Central	$4,525,465		Nat'l Guaranty
WM-Gulf Coast	$3,084,084		Nat'l Guaranty
WM-Immokalee	$1,285,545		Nat'l Guaranty
WM-Keene Rd	$2,042,309		Nat'l Guaranty
WM-Medley	$2,916,760		Nat'l Guaranty
WM-Naples	$4,607,332		Nat'l Guaranty
WM-Pine Ridge	$1,722,230		Nat'l Guaranty
WM-Springhill	$2,221,995		Nat'l Guaranty
WM-Sunbeam	$0.0		Nat'l Guaranty

2. Facility	Closure Cost Est.	Remaining Capacity	Rate of Disposal (permitted tons/yr)
WM-Richmond Cty.	$667,583	4,786,243	655,000
WM-Oakridge	4,428,492	6,878,432	1,144,000
WM-Hickory Hil	$3,061,803	2,867,403	307,000
WM Palmettol	$4.939,197	10,936,333	1,200,000

SENATE BILL NO. _____ HOUSE BILL NO. _____

Appendix G

A BILL to amend and reenact § 10.1-1410 of the Code of Virginia, relating to financial assurance for abandoned solid waste facilities.

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1410 of the Code of Virginia is amended and reenacted as follows:

§ 10.1-1410. Financial responsibility for abandoned facilities; penalties.

A. The Board shall promulgate regulations which ensure that if a facility for the disposal or treatment of solid waste is abandoned, the costs associated with protecting the public health and safety from the consequences of such abandonment may be recovered from the person abandoning the facility.

B. The regulations may include provisions for bonding ~~requirements~~, the creation of a trust fund to be maintained within the Department, self-insurance, other forms of commercial insurance, or such other mechanism as the Department may deem appropriate. Regulations governing the amount thereof shall take into consideration the potential for contamination and injury by the solid waste, the cost of disposal of the solid waste and the cost of restoring the facility to a safe condition. Any bonding requirements shall include a provision authorizing the use of personal bonds or other similar surety deemed sufficient to provide the protections specified in subsection A upon a finding by the Director that commercial insurance or surety bond cannot be obtained in the voluntary market due to circumstances beyond the control of the permit holder. Any commercial insurance or surety obtained in the voluntary market shall be written by an insurer licensed pursuant to Chapter 10 (§ 38.2-1000 et seq.) of Title 38.2.

C. No state governmental agency shall be required to comply with such regulations.

D. Forfeiture of any financial obligation imposed pursuant to this section shall not relieve any holder of a permit issued pursuant to the provisions of this article of any other legal obligations for the consequences of abandonment of any facility.

E. Any funds forfeited prior to July 1, 1995, pursuant to this section and the regulations the Board shall be paid over to the county, city or town in which the abandoned facility is located. The county, city or town in which the facility is located shall expend forfeited funds as necessary to restore and maintain the facility in a safe condition.

F. Any funds forfeited on or after July 1, 1995, pursuant to this section and the regulations of the Board shall be paid over to the Director. The Director shall then expend forfeited funds as necessary solely to restore and maintain the facility in a safe condition. Nothing in this section shall require the Director to expend funds from any other source to carry out the activities contemplated under this subsection.

G. Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be liable to the Commonwealth and any political subdivision for the costs incurred in abating, controlling, preventing, removing, or containing such harm or threat.

Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be guilty of a Class 4 felony.

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SENATE BILL NO. _____ HOUSE BILL NO. _____

Appendix H

A BILL to amend and reenact § 10.1-1410 of the Code of Virginia, relating to financial assurance for abandoned solid waste management facilities.

Be it enacted by the General Assembly of Virginia:

1. That § 10.1-1410 of the Code of Virginia is amended and reenacted as follows:

§ 10.1-1410. Financial responsibility for solid waste management facilities; penalties.

A. The Board shall promulgate regulations which ensure that if a facility for the disposal or treatment of solid waste is abandoned, the costs associated with protecting the public health and safety from the consequences of such abandonment may be recovered from the person abandoning the facility.

B. The regulations ~~may include bonding requirements, the creation of a trust fund to be maintained within the Department, self-insurance, other forms of commercial insurance, or such other mechanism as the Department may deem appropriate~~ shall require that an owner and operator of a solid waste management facility:

1. Ensure the availability of financial resources for the proper operation, closure and post-closure care of the facility by (i) demonstrating that he passes a test for financial viability developed by the Board and (ii) depositing funds in an interest-bearing escrow account, the solid waste management facility escrow account, to be held and administered by the owner or operator. Proper operation shall include corrective and any other remedial actions required over the life of the facility and the post-closure care period; and

2. Secure and maintain liability coverage for claims arising from injuries to other parties, including bodily injury or damage to property of others. This coverage shall be in the form of an insurance policy written by an insurer licensed pursuant to Chapter 10 (§38.2-1000 et seq.) of Title 38.2, or other financial instruments as authorized by the Board.

Payments into the solid waste management facility escrow account shall be made by the owner or operator at least annually in an amount to be determined by the Department of Environmental Quality. The owner or operator may accelerate payments into the escrow account or may deposit the full amount of the costs at the time the account is established. The owner or operator may make expenditures from the escrow account and its accumulated interest only for the purposes of facility closure and post-closure care, any corrective or other remedial actions and third party liability payments so long as such expenditures do not deplete the escrow account to the detriment of eventual closure and post-closure care.

C. Any owner or operator may establish proof of financial assurance in lieu, or in combination with, the requirements of subdivision B 1. Such proof may include surety bonds, certificates of deposit, securities, letters of credit, trust fund agreements or insurance licensed pursuant to Chapter 10 (§ 38.2-1000 et seq.) of Title 38.2.

D. Regulations governing the amount ~~thereof~~ of financial assurance shall take into consideration the potential for contamination and injury by the solid waste, the cost of disposal of the solid waste and the cost of restoring the facility to a safe condition. Any bonding requirements shall include a provision authorizing the use of personal bonds or other similar surety deemed sufficient to provide the protections specified in subsection A upon a finding by the Director that commercial insurance or surety bond cannot be obtained in the voluntary market due to circumstances beyond the control of the permit holder.

~~C.~~ E. No state governmental agency shall be required to comply with such regulations.

~~D.~~ F. Forfeiture of any financial obligation imposed pursuant to this section shall not relieve any holder of a permit issued pursuant to the provisions of this article of any other legal obligations for the consequences of abandonment of any facility.

~~E.~~ G. Any funds forfeited prior to July 1, 1995, pursuant to this section and the regulations of the Board shall be paid over to the county, city or town in which the abandoned facility is located. The county, city or town in which the facility is located shall expend forfeited funds as necessary to restore and maintain the facility in a safe condition.

~~F.~~ H. Any funds forfeited on or after July 1, 1995, pursuant to this section and the regulations of the Board shall be paid over to the Director. The Director shall then expend forfeited funds as necessary solely to restore and maintain the facility in a safe condition. Nothing in this section shall require the Director to expend funds from any other source to carry out the activities contemplated under this subsection.

~~G.~~ I. Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be liable to the Commonwealth and any political subdivision for the costs incurred in abating, controlling, preventing, removing, or containing such harm or threat.

Any person who knowingly and willfully abandons a solid waste management facility without proper closure or without providing adequate financial assurance instruments for such closure shall, if such failure to close results in a significant harm or an imminent and substantial threat of significant harm to human health or the environment, be guilty of a Class 4 felony.

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