

VIRGINIA WASTE MANAGEMENT BOARD

REGISTRAR'S NOTICE: Due to its length, the proposed regulation filed by the Virginia Waste Management Board is not being published. However, in accordance with § 9-6.14:22 of the Code of Virginia, the summary is being published in lieu of the full text. The full text of the regulation is available for public inspection at the office of the Registrar of Regulations and at the Department of Environmental Quality, 629 East Main Street, Richmond, VA. Copies of the regulation may be obtained from Wladimir Gulevich, Assistant Division Director, Department of Environmental Quality, P.O. Box 10009, Richmond, VA 23240, telephone (804) 698-4218, FAX (804) 698-4266, toll-free 1-800-592-5482 or (804) 698-4021/TDD.

Title of Regulation: 9 VAC 20-80-10 et seq. **Solid Waste Management Regulations (amending 9 VAC 20-80-10, 9 VAC 20-80-60, 9 VAC 20-80-80, 9 VAC 20-80-100, 9 VAC 20-80-120, 9 VAC 20-80-140, 9 VAC 20-80-150, 9 VAC 20-80-160, 9 VAC 20-80-170, 9 VAC 20-80-180, 9 VAC 20-80-200, 9 VAC 20-80-210, 9 VAC 20-80-220, 9 VAC 20-80-250, 9 VAC 20-80-260, 9 VAC 20-80-270, 9 VAC 20-80-280, 9 VAC 20-80-290, 9 VAC 20-80-310, 9 VAC 20-80-330, 9 VAC 20-80-340, 9 VAC 20-80-350, 9 VAC 20-80-380, 9 VAC 20-80-460, 9 VAC 20-80-470, 9 VAC 20-80-480, 9 VAC 20-80-500, 9 VAC 20-80-540, 9 VAC 20-80-560, 9 VAC 20-80-620, 9 VAC 20-80-630, 9 VAC 20-80-640, 9 VAC 20-80-670, 9 VAC 20-80-700, 9 VAC 20-80-730, 9 VAC 20-80-760, Appendices 5.1, 5.5, 7.4 and 9.1; adding 9 VAC 20-80-115, 9 VAC 20-80-485 and Appendix 5.6; repealing 9 VAC 20-80-360, 9 VAC 20-80-370, 9 VAC 20-80-400, Appendices 4.1, 5.2, 5.3, 7.1, 7.2 and 7.3).**

Statutory Authority: Chapter 14 (§ 10.1-1400 et seq.) of Title 10.1 of the Code of Virginia.

Public Hearing Date: April 20, 1998 - 10 a.m.

Public comments may be submitted until May 21, 1998.
(See Calendar of Events section
for additional information)

Basis: The Virginia Waste Management Act authorizes the Waste Management Board to supervise and control waste management activities in the Commonwealth and to promulgate regulations necessary to carry out its powers and duties. Article 2 of the Act prohibits the ownership or operation of an open dump which is defined in § 10.1-1400 to be any "...site on which any solid waste is placed, discharged, deposited, injected, dumped, or spilled so as to create a nuisance or present a threat of a release of harmful substances into the environment or present a hazard to human health."

The Act further prohibits any person from the operation of a facility for the disposal, treatment or storage of nonhazardous solid waste without a permit from the Director of the Department of Environmental Quality (§ 10.1-1408.1 A) and requires the permit to contain such conditions or requirements that would prevent a substantial present or

potential danger to human health and the environment (§ 10.1-1408.1 E).

Purpose: The principal purpose of the Virginia Solid Waste Management Regulations is to provide clear and appropriate standards for the management of waste to avoid the designation of open dumping and to outline substantive and procedural guidelines designed to establish a sound basis for the issuance of permits for disposal, treatment, and storage of nonhazardous solid waste. The initial regulations were first promulgated in December 1988 and were amended in March 1993 to reflect the requirements of the federal Criteria for Municipal Solid Waste Landfills contained in 40 CFR Part 258. As the result of these changes, the Virginia solid waste management program received approval from the United States Environmental Protection Agency that enabled the department to grant variances from the federal standards. The proposed amendment deals with the portions of the regulations that are not affected by the federal requirements and that are not subject to the federal program approval. The changes contained in the proposed amendment are designed to capitalize on the department's experience in administering the regulatory requirements during the past eight years by clarifying and simplifying technical requirements and by streamlining the administrative procedures.

Substance: The proposed amendments contain more than 240 changes of which six changes are made to recognize new statutory requirements, 72 changes are designed to reduce regulatory burden, 23 changes make the various sections of the regulation more self-consistent, and the remaining amendments clarify the existing requirements or make editorial changes and corrections without changing the intent or the meaning of the original requirement. The major proposed amendments:

1. Exempt several new materials being recycled or new recycling processes, such as on-site composting, materials used as fertilizers, waste tires managed in salvage yards, chipped tires used in septage drain fields, tire chips less than two inches in diameter, and mixtures of source-separated wastes;
2. Exempt sanitary landfills that stopped accepting wastes before October 9, 1993, and all construction/demolition/debris and industrial waste landfills from the federally-driven ground water monitoring program and require instead the use of a simplified state-designed program;
3. Allow the facility operator to initiate corrective action at an early point in time to streamline the corrective action and also provide for the use of presumptive remedies instead of requiring extensive studies leading to the formal selection of remedies;
4. Remove columns in the table in Appendix 5.1 that referred to the analytical methods and accompanying practicable quantitation limits since they were never intended to be regulatory requirements;
5. Restructure the sections dealing with transfer stations, materials and energy recovery facilities, and

incinerators by consolidating all the requirements into those associated with storage and treatment of wastes in containers, tanks and piles;

6. Allow the owners or operators of captive industrial landfills to claim that they have a permit-by-rule for such facilities provided they meet all substantive requirements of the regulations;

7. Reduce the number of permit amendment classifications from three to two, the minor and the major amendments, in order to simplify the procedural requirements for amendment of permits.

8. Delete the requirement for analyzing soil contaminated with petroleum products for total petroleum hydrocarbons ("TPH") and for toluene, ethylbenzene, and xylene and allow disposal of such soils in a sanitary landfill provided that the benzene concentration is less than 40 milligrams per kilogram of soil; the allowed concentration of benzene for the "clean-fill" classification would depend on a case-by-case health-based risk analysis.

Issues: The Virginia Solid Waste Management Regulations are being amended in response to the internal review of the department's regulations required by the Executive Order No. 15 (94) and in response to the petition for rulemaking submitted by the Municipal Landfill Group, an organization of about 40 municipalities which are owners of active or closed landfills. The Notice of Intended Regulatory Action was published in the Virginia Register on September 18, 1995, and a public meeting was held on October 19, 1995. During the public participation period, the department has received written or oral comments from 10 responders. Six of the 10 responders requested changes in the ground water monitoring program so that it would be less costly to conduct. Other comments were received requesting:

- Streamlining the corrective action selection process;
- Providing for permit-by-rule process for captive industrial landfills;
- Simplifying the permit amendment process;
- Decreasing the requirements for disposal of soil contaminated with petroleum compounds;
- Clarifying that incinerators are subject to both waste management and air pollution control regulations;
- Clarifying construction/demolition and industrial landfill design standards;
- Including a person representing construction/demolition landfill industry on the Technical Advisory Committee;
- Combining Financial Assurance Regulations for Solid Waste Facilities ("FAR") (9 VAC 20-70-10 et seq.) with the Virginia Solid Waste Management Regulations;
- Reviewing the permit fee structure;
- Adding new wastes to the list of those that require special handling; and

- Increasing the permitting requirements for recyclers.

As mentioned in the previous section, the proposed regulations are addressing the ground water monitoring requirements and the first seven of the requests received during the initial public comment period. The combining of FAR and these regulations is not feasible because FAR also apply to other regulations promulgated by the department and the review of permitting fees involves a separate rulemaking procedure. Addition of new wastes to the list requiring special handling as well as changing the permitting requirements for recyclers would unnecessarily increase the regulatory burden.

There are no perceived disadvantages to the public or the Commonwealth resulting from these proposed amendments. The advantages include the improvement and streamlining of the regulatory requirements while continuing to provide adequate supervision and control over waste management activities.

Estimated Impact: The changes proposed in Amendment 2 are designed to reduce the administrative procedures, to increase the number of regulatory exemptions and to streamline certain substantive requirements and, therefore, to reduce the overall costs to the regulated community and to the department. At the present time the number of facilities subject to these regulations are shown in the table below.

Landfills subject to federal requirements	67
Landfills not subject to federal requirements	52
Materials and energy recovery facilities	31
Transfer stations	50
Total	200

The proposal to create a separate state ground water monitoring program for waste disposal facilities not subject to federal open dump criteria (40 CFR Parts 257 and 258) could result in annual saving of at least \$3,000 per monitoring well. At a minimum, small landfills are required to be equipped with four such wells. Larger landfills may have as many as 20 such wells per facility.

Inclusion of the concept of presumptive remedies to satisfy corrective action requirements would eliminate the necessity for costly studies designed to identify and evaluate alternative remedies. Such engineering studies would be expected to cost approximately \$48,000 for a moderately sized landfill.

Acceptance of petroleum-contaminated soil in landfills at the 40 parts per million benzene level will result in savings of approximately \$10 per ton of acceptable soil as compared to other methods of management. It is estimated that as much as 200,000 cubic yards of contaminated soil is excavated annually as the result of the underground storage tank program. The percentage of soil that would be disposed as clean fill or in the landfills is currently unknown.

The impact of the remaining changes would be to decrease the overall regulatory costs; however, the estimation would greatly depend on the specific conditions associated with the

management of wastes. The magnitude of cost savings would, in general, be small compared to those above.

Localities Particularly Affected: There is no particular locality that is more affected than another.

Department of Planning and Budget's Economic Impact Analysis: The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with § 9-6.14:7.1 G of the Administrative Process Act and Executive Order Number 13 (94). Section 9-6.14:7.1 G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

Summary of the proposed regulation. This proposal amends the Virginia Solid Waste Management Regulations to reflect changes in the Virginia Waste Management Act and changes in the federal Solid Waste Disposal Facility Criteria. Some other changes are made with the intention of streamlining the rules and of reducing the costs of meeting the desired level of environmental protection. While most of the changes are relatively minor, eight of the changes could have significant economic impacts:

- Changes in ground water monitoring rules for some facilities
- Exempt some recyclables and transfer control over some others to other agencies
- Changes the applicability of the rules applying to some facilities
- Allow the use of presumptively effective remedies for contamination
- Reclassify some facilities by regulated activity rather than by industrial type
- Allow general permits for certain captive industrial landfills
- Amend procedural requirements for amending permits
- Change the requirements for analyzing soil contaminated with petroleum products

Estimated economic impact.

Ground water monitoring rules: The ground water monitoring rules for nonfederally regulated facilities were established in 1988 based on some proposed rules that EPA had drafted for those facilities subject to federal regulations. While a different, and somewhat improved set of rules was eventually promulgated by EPA in 1991 and applied to federally regulated facilities, the other facilities remained under the 1988 rules. In response to comment from owners

and operators of nonfederally regulated facilities, DEQ has proposed changes designed to the monitoring rules that reduce monitoring costs without reducing effectiveness. According to DEQ, the changes could save as much as \$3,000 per monitoring well, or \$12,000 per facility.

Exempt recyclables: 9 VAC 20-80-160 A 6 of the proposed regulation reflects the requirement in the Virginia code that requires waste tires at salvage yards be regulated by the Virginia Department of Motor Vehicles. Tires used for the construction of septic drainfields are left to the regulation of the Department of Health. This shift of regulatory authority between agencies does not, of itself, have economic consequences. That depends on what is done by the agencies receiving the authority which is beyond the scope of this report.

In 9 VAC 20-80-160 C, these regulations also provide that:

A. The following solid wastes are exempt from this chapter provided that they are reclaimed or temporarily stored incidentally to reclamation, are not accumulated speculatively, and are managed without creating an open dump, hazard or a public nuisance:

1. Paper and paper products;
2. Mulch;
3. Cloth;
4. Glass; ~~and~~
5. Plastics;
6. *Waste tire chips that are no greater than two inches in any dimension; and*
7. *Mixtures of above materials only. Such mixtures may include scrap metals exempt under 9 VAC 20-80-150 H.*

The definition of speculatively accumulated material is as follows:

"Speculatively accumulated material" means any material that is accumulated before being used, reused, or reclaimed or in anticipation of potential use, reuse, or reclamation. A solid waste is not being accumulated speculatively when it can be used, reused or reclaimed, has a feasible means of use, reuse, or reclamation available and 75 per cent of the solid waste accumulated is being removed from the facility annually.

The provision that a material is not exempt if it is accumulated speculatively is, in our view, hard to justify.¹ The motives that a party has for holding a resource does not in itself determine whether the resource presents an environmental hazard. Environmental risk would be determined by physical factors such as the length of time the items are stored,² the size of the stock of recyclables, whether they are covered or uncovered, and the presence or

¹ The word "speculatively" here seems to have the meaning: without reasonable likelihood of success. It is not that the accumulation is "forward looking," the dictionary meaning of speculative, but rather that the regulatory agency considers the accumulation to be a bad business decision.

² This factor involves an inquiry into the existence of a potential market for the material.

absence of vector attraction. None of these are directly related to the presence or absence of speculative motivation.

When an entrepreneur buys an input to production, she is accumulating it speculatively whether she holds it for an hour or a year. The practical implication of the choice of language here is that a broker who holds recyclables to sell to processors would not be exempt, while the exact same pile, if owned by the processing plant, would be exempt. In fact, it is possible that there would be less environmental risk if the resources were held by speculators rather than processing plants. This is something that would have to be determined on an examination of the physical risk factors.

An entrepreneur may hold bales of cotton without becoming subject to solid waste regulations but may not hold bales of white office paper for recycling or reuse without being classified as a solid waste facility. Bales of cellulose fiber in a warehouse hardly seem a likely target of solid waste regulations. When a reusable material presents no more environmental risk than unregulated commercial counterparts there is little justification for maintaining the "speculative accumulation" distinction.

The 75% rule in particular rules out the accumulation of recyclables during recessions for sale when resource markets tighten. The practical effect of this would be to cause recyclables to be deposited in landfills during periods when the market is soft and unnecessarily high prices during strong markets. This will necessarily reduce the value of recycled inputs. In fact, environmentally sound speculation in recyclables almost certainly provides a net economic gain to society.

The language on speculative attraction originates with EPA and is repeated in both the DEQ regulations and even in the Code of Virginia. Thus, it is not really within DEQ's power to change this language. And, to DEQ's credit, those wishing to speculate on a stock of recyclables for which there is a reasonably active market, can apply for a variance from the 75% rule with a letter to DEQ. This means that the speculative accumulation rule is really just an ex post enforcement rule. Those who mishandle recyclables and thereby cause an environmental damage are subject to DEQ enforcement actions. While it is not clear why waste glass, paper, aluminum, plastics, etc. should be subject to more than local nuisance ordinances, it is doubtful that the additional possible enforcement actions have any significant economic implications.

DEQ points out that this rule is important for enforcement actions against sham recycling operations that pose significant environmental risk. That said, there does not appear to be a compelling reason why the risk factors should not be the trigger for regulation rather than the rule of thumb determined by the speculative accumulation rule. One of the risk factors to consider would surely be whether the material is likely to be subject to commercially viable recovery, but another factor would surely be whether the accumulated resource is different, in any important respects, from other inputs to production that are not subject to the waste regulations. Again, this is not DEQ's choice to make.

However, it may be hoped that future versions of the federal rules may allow more appropriate regulation in this area.

Changes in applicability: 9 VAC 20-80-60 B contains a number of changes in how the chapter is applied to certain existing, non-federally regulated facilities. These changes were made in direct response to changes in § 10.1-1400 et seq. of the Code of Virginia. As such, these changes are not within the scope of the current analysis.

Presumptively effective remedies: Under the existing regulations, if a landfill causes ground water contamination the owner must go through a complicated and expensive corrective action process involving 4 steps:

- Study the problem and possible solutions,
- Select a remedy from among those studied,
- Hold a public hearing on the choice of remedy, and
- Implement the chosen remedy.

This process is complicated, time-consuming and expensive. It can cost tens of millions of dollars and can delay the start of remedial activities. In many circumstances, there are remedies that are known to be acceptable. In such cases, it makes sense to allow firms to apply the known effective solutions immediately if that is a cost-effective option for them. This allows remedial action to begin more quickly and saves on the costs of studying less preferred remedies.

The list of allowed presumptive remedies all amount to some form of containment and expanded monitoring. The owner is allowed to use this remedy as long as the risk at the site boundary is less than that level that would otherwise trigger remedial action. For the owner, the value of this option is in using enhanced containment activities to delay the standard corrective action process. The containment may sufficiently reduce leakage so that the contamination plume will be diluted to a level below that triggering regulatory action by the time the plume reaches the property boundary. Incidentally, one strategy an owner might use here is to buy additional land in order to give the plume a greater distance for dilution before reaching the boundary.

Even if the presumptive remedy does not permanently eliminate the problem, there may be a great value to the owner of delaying the cost of the corrective action process. There is a great benefit to the owner of delaying large expenditures further into the future. The owner must balance this against the additional cost of the interim solution, the risk that it will not work, and the risk that the problem may become more difficult to remediate after the delay.

If DEQ's assertion is correct that the owner's choice will not change the level of environmental risk at the border of the owner's property, then there are not any significant costs to society of allowing the owner the flexibility of using the presumptive remedy if it appears to be the more profitable choice. In fact, by allowing containment activities to proceed much more quickly than before, there could be a net reduction in environmental risk. Given the lack of reliable data on this issue, it is incumbent on DEQ to maintain records sufficient to determine whether this program raises

or lowers environmental risk from landfill derived ground water contamination.

Reclassification of facilities by regulated activity rather than by industrial type: Under the existing rules, facilities are classified in a way that often has little to do with the actual type of physical activity and its associated environmental risk: solid waste transfer stations, materials recovery facilities, and energy recovery and incineration facilities. DEQ proposes reclassifying these activities according to the two types of physical activities usually involved: storage in containers and tanks and storage in waste piles. For a given type of physical activity, the actual regulatory requirements are the same as before. Thus, while these changes will not have a large economic impact, they will improve the clarity and effectiveness of the regulations.

This move toward classifications more directly related to environmental risk is appropriate. This is the same sort of change suggested earlier in this document for the "speculative accumulation" provisions in this regulation.

Allow general permits for certain captive industrial landfills: According to DEQ, the environmental risks associated with on-site (captive) industrial landfills tend to be lower than the risks for many other types of disposal facilities. Thus, DEQ has added captive industrial facilities to the list of facilities that can qualify for coverage under a general permit (permit by rule) by making the necessary assurances to DEQ that the facility in question meets all of the requirements of the rule. This general permitting process is much quicker and less expensive than the full permitting process but requires the same design and monitoring standards that would be applied under a standard permit. A firm has substantial incentive to maintain its general permit. Any violation of the terms of the general permit will require the owner to incur the cost of the full permitting process. Given that these facilities do present fairly low environmental risk and that the design and monitoring standards are the same as under a full permit, it is likely that there is a net economic gain from including captive industrial landfills in the permit by rule provisions.

Procedural requirements for amending permits: DEQ proposes making some changes in the procedural requirements for making certain changes to operating permits. In the current regulations, permit modifications are classified into three tiers: major, substantive, and minor. The effect of the current proposal is to fold the changes classified as substantive into the minor category. The practical impact of the change is that those changes that were listed as substantive will no longer need to be presented to the public before the change is implemented. Given the technical nature of those permit modifications that were "substantive," this change is not likely to have any real impact on public involvement in the permitting process. DEQ indicates that there has been little public input into substantive permit modifications in the past. Thus, while this change does reduce the number of legal opportunities for public input, the change is not material and is not likely to have any economic impact other than the benefits of reductions in the time and staff required for permit

modifications. This will generate a small net economic gain for Virginia.

Change the requirements for analyzing soil contaminated with petroleum products: DEQ is proposing a change in the testing of soil contaminated with petroleum by-products. In the past, firms wishing to dispose of soil contaminated with petroleum products were required to test for Total Petroleum Hydrocarbon (TPH) concentration and the sum of the concentrations of benzene, toluene, ethyl benzene, and xylene (BTEX). Because each of these substances have different human and environmental risk profiles, the TPH and BTEX measures are not meaningful for risk analysis. The current approach to regulating these substances is to analyze for specific items and then carry out a risk analysis.

The risks that are the focus of this section of the regulation are not risks due to the presence of the substances in any leachate from the landfill. These risks are regulated elsewhere in the regulations. The risks addressed in this section are primarily from human exposure before the landfill is closed. Most of that risk is to the people who work at the landfill. Thus, the risk due to petroleum contaminated soils can be controlled by controlling the risk to those workers.

The object of this section is to protect workers from the inhalation of vapors from the contaminated soil. Of the substances analyzed under the existing regulations, benzene is the substance with the lowest concentration at which it is a known human carcinogen. If the risk from benzene is minimized, then the risks from other petroleum contaminants will generally be controlled as well. The standard for benzene is that vapors inhaled by workers must be no greater than 40 parts per million.

Focusing the regulation on benzene rather than TPH and BTEX allows a more scientific evaluation of risks and allows DEQ to achieve a more uniform level of protection for workers. Changing the focus of the test also reduces the costs of testing required for landfill disposal of the wastes. DEQ estimates a savings of approximately \$10 per ton of soil. Another benefit of this regulation is that it will allow for lower cost disposal of significant amounts of contaminated soils. Under the current rules, a significant amount of soil that would meet acceptable risk standards would not be allowed in landfills. Such soils would have to be decontaminated before being placed in a landfill or would have to be disposed of as hazardous waste. Decontamination is an expensive process and hazardous waste disposal is much more costly than disposal in a solid waste landfill.

Other sources of economic costs and benefits: The disposal of wastes in landfills is regulated because this activity imposes some risks to environmental quality and human health. As long as those using and providing landfill services are paying the full cost of their activity, including the costs to the public of the environmental and health risks, then economic efficiency is likely to be achieved. If, however, there are residual, uncompensated risks, then an increase in landfill activity could reduce rather than raise economic welfare in Virginia.

The reason that it is important to consider this issue is that the result of these regulations will be to lower the costs of solid waste landfill services in Virginia. This reduction in costs will induce an increase in the quantity of the services demanded either from waste generators in Virginia or from out-of-state generators. So long as the efficiency condition mentioned earlier is met, then we could unambiguously state that a decrease in landfill costs will be an economic benefit to Virginia. However, the analysis of whether solid waste landfills do actually pay the full social cost of their activity is beyond the scope of this report.

The more stringent regulation of new solid waste landfills, gives some confidence that many of the residual environmental risks have been controlled at least to the economically optimal level. For these facilities, there is a reasonable assurance that there are net economic benefits to be gained from reducing the costs of these services. This conclusion is less clear for facilities that are operating under less stringent standards. There is no consensus at this time about whether the environmental risks in the older facilities reflect an adequate accounting for environmental risk. Thus, for wastes deposited in older facilities, it is not possible to state a conclusion on whether the reduction in costs at these facilities will result in a net gain to Virginia.

Businesses and entities affected. A reduction in the costs of using solid waste landfills will reduce disposal costs for many businesses and municipalities across Virginia.

Localities particularly affected. No localities will share disproportionately in the costs or benefits of this proposal.

Projected impact on employment. A reduction in the costs of landfill services will make those services more attractive relative to other disposal options. This will tend to increase employment in the landfill services industry. Some of this increase will be due to a net increase in waste disposal activity due to an increase in the amount of wastes imported into Virginia for disposal. There will be some loss in employment in industries that serve as substitutes for landfills.

Effects on the use and value of private property. The question about impacts on private property is somewhat complicated. There could be some increase in the value of property used for landfills, but this effect should be small since there are many substitute sites and an increase in demand for landfill services by itself should not produce any significant long-run increase in the rate of return in this industry. On the other hand, because landfill activity is known to have a negative effect on neighboring property, the increase in landfill activity could reduce the value somewhat of properties at close proximity to landfill sites. Neither the sign nor the magnitude of this impact can be stated with certainty because of the uncertainty over whether older landfills achieve economically optimal environmental risks.

Summary of Analysis. This regulation proposes a number of reasonable changes in the solid waste regulations. Many of these changes will tend to reduce the cost of landfill services without generating any additional environmental risk. For newer landfills, there can be some confidence that this

reduction in costs will result in a net economic benefit for Virginia. However, because it is not known whether older landfills have achieved an economically efficient level of environmental risk, it cannot be stated with certainty that a reduction in the costs of using these facilities will result in a net economic gain to Virginia. Such a conclusion would require an analysis well beyond the scope of this report.

Agency's Response to the Department of Planning and Budget's Economic Impact Analysis: The Department of Planning and Budget has no objections to the analysis prepared by the Department of Planning and Budget except for the discussion of "speculative accumulation." The department believes that the concept, which was introduced by EPA in 1985, is a necessary and important enforcement tool.

Summary:

The majority of the proposed amendments consist of editorial corrections, clarification of the language of the regulations, and correcting existing or adding new references. Other changes are made to reduce the regulatory burden and to reflect changes in the Virginia Waste Management Act or the federal Solid Waste Disposal Facility Criteria. Changes are also proposed to make the regulations more self-consistent or to confirm the permitting practices currently established by the department. The major proposed changes are:

- 1. Development of a state ground water monitoring program applicable to certain closed sanitary landfills and all construction/demolition/debris and industrial waste landfills;*
- 2. Ability for owners or operators of industrial waste disposal facilities to avail themselves of the permit-by-rule procedures for landfills located on the site owned by the generator of wastes;*
- 3. Development of the concept of presumptive remedies to streamline the corrective action process; and*
- 4. Deletion of requirements to analyze petroleum contaminated soil for total petroleum hydrocarbons, toluene, ethyl benzene and xylene and ability to use health-based risk assessment methods for management of excavated soils.*

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