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**ENVIRONMENTAL PROTECTION**

**SITE REMEDIATION AND WASTE MANAGEMENT**

**Solid Waste; Landfills**

**Proposed Amendments: N.J.A.C. 7:26-1.4, 1.6, 2.8, 2A.1, 2A.4, 2A.7, 2A.8, and 2A.9; 7:26A-1.3; 7:27-7.1; and 7:27A-3.10**

**Proposed Repeal and New Rule: N.J.A.C. 7:26-2A.3**

**Proposed New Rule: N.J.A.C. 7:27-7.3**

Authorized By: Bob Martin, Commissioner, Department of Environmental Protection.

Authority: N.J.S.A. 13:1B-3, 13:1D-1 et seq., 13:1D-125 et seq., 13:1E-1 et seq., 13:1E-100 et seq., 13:1E-125.1 et seq., 26:2C-1 et seq., 47:1A-1 et seq., 58:10-23.11, and 58:10A-1 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement.

DEP Docket Number: 08-16-07.

Proposal Number: PRN 2016-119.

A **public hearing** concerning this proposal will be held on Friday, September 23, 2016, at 10:00 A.M. at:

New Jersey Department of Environmental Protection

Hearing Room, 1st Floor

401 East State Street

Trenton, New Jersey

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Directions to the hearing room may be found at the Department of Environmental Protection's (Department's) website address at www.nj.gov/dep/where.htm. Submit comments by October 14, 2016, electronically at www.nj.gov/dep/rules/comments. Each comment should be identified by the applicable N.J.A.C. citation, with the commenter's name and affiliation following the comment.

The Department encourages electronic submittal of comments. In the alternative, comments may be submitted on paper to:

Alice A. Previte, Esq.

Attention: DEP Docket Number 08-16-07

Office of Legal Affairs

Department of Environmental Protection

401 East State Street, 7th Floor

Mail Code 401-04L

PO Box 402

Trenton, New Jersey 08625-0402

Written comments may also be submitted at the public hearing. It is requested (but not required) that anyone submitting oral testimony at the public hearing provide a copy of any prepared text to the stenographer at the hearing.

The rule proposal may be viewed or downloaded from the Department's website at www.nj.gov/dep/rules.

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The agency proposal follows:

## Summary

As the Department has provided a 60-day comment period on this notice of proposal, this notice is excepted from the rulemaking calendar requirements pursuant to N.J.A.C. 1:30-3.3(a)5.

The Department of Environmental Protection (Department) is proposing to amend the Solid Waste rules, N.J.A.C. 7:26, Recycling Rules, 7:26A, Air Pollution Control rules, 7:27, and the Air Administrative Procedures and Penalties, 7:27A, as they pertain to sanitary landfills to codify and implement the provisions of the Legacy Landfill Law, N.J.S.A. 13:1E-125.1 et seq. (the Law), which became effective on June 26, 2013. Additional proposed amendments address post-closure requirements, as well as clarify language in the chapter.

The Law establishes requirements and controls applicable to legacy landfills and closed sanitary landfill facilities that accept new materials after closure in order to, for example, close a landfill that has not been previously closed, regrade a landfill for proper drainage, or prepare the landfill surface for redevelopment. A "legacy landfill," as discussed further below in the Legacy Landfills and Closed Sanitary Landfill Facilities section of the Summary, is a landfill that ceased operations prior to January 1, 1982, and received for disposal either solid waste or waste material that would meet the definition of hazardous waste under the Resource Conservation and Recovery Act (RCRA) but was received for disposal prior to the enactment of RCRA on October 21, 1976. In passing the Law, the Legislature intended to allow for the redevelopment of closed sanitary landfill facilities, encourage proper closure of legacy landfills in order that they may be

redeveloped in the future, require municipal involvement in the redevelopment of legacy landfills and closed sanitary landfill facilities within the municipality, and provide various safeguards to protect against future problems at legacy landfills and closed sanitary landfill facilities that accept materials for closure or redevelopment.

The Law requires certain people who undertake closure and possible redevelopment of legacy landfills, and owners or operators who propose to bring material to closed sanitary landfill facilities for redevelopment, to apply for and obtain municipal site plan approval. The Law further requires financial assurance in an amount necessary to pay for closure, and liability insurance to cover damages or claims resulting from the operation or closure of a legacy landfill or closed sanitary landfill facility. The Law establishes a maximum air quality standard for hydrogen sulfide ($H_2S$) of 30 parts per billion (ppb) averaged over any 30 minutes, measured at the property line of a legacy landfill or closed sanitary landfill facility, and provides for injunctive and other judicially imposed relief if the air quality standard is violated. The Department may issue an emergency order if an activity occurring at a legacy landfill or closed sanitary landfill facility presents an imminent threat to the environment or public health and safety.

The Department has determined that rulemaking is necessary in order for it to implement the Law, and to assist the regulated community in complying with the Law. The existing Solid Waste rules at N.J.A.C. 7:26 contain requirements for closure and post-closure care and disruption of sanitary landfills. Rather than promulgating a separate subchapter to implement the Law, the Department is integrating the Law's requirements into the existing rules to provide the

regulated community and the public with comprehensive rules that address closure and post-closure care and disruption of all sanitary landfills. The Department also proposes to extend some requirements of the Law to all sanitary landfills, whether or not they are operating, and to clarify existing rules, as discussed further below.

The within Summary is organized by subject, such as Closure and Post-Closure Plan Requirements, Post-Closure Evaluation, and Municipal Site Plan Approval. The relevant proposed new rules and amendments are discussed below each subject heading. Consequently, proposed amendments to a section, such as to the definitions at N.J.A.C. 7:26-1.4, may be discussed in several places in the Summary.

**Stakeholder Involvement**

The Department held workgroup meetings in September, October, and December 2014, at its headquarters in Trenton to solicit input from stakeholders, including sanitary landfill owners, Class B recycling facility owners, municipalities, and engineering and environmental consultants. The Department considered the comments and concerns of stakeholders in drafting the proposed rules.

**Legacy Landfills and Closed Sanitary Landfill Facilities**

The Law defines a "legacy landfill" as a landfill that ceased operations prior to January 1, 1982, and received for disposal: solid waste or waste material that was received for disposal prior to October 21, 1976, and that is included within the definition of hazardous waste adopted by the

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Federal government pursuant to the "Resource Conservation and Recovery Act," 42 U.S.C. §§ 6921 et seq. (RCRA). The Law does not define "landfill," but defines "sanitary landfill facility" as "a solid waste facility at which solid waste is deposited on or in the land as fill for the purpose of permanent disposal or storage for a period exceeding six months, except that it shall not include any waste facility approved for disposal of hazardous waste." The Law's definition of "sanitary landfill facility" is consistent with the definition of "sanitary landfill" in the Solid Waste rules at N.J.A.C. 7:26-1.4. The Department proposes to define "legacy landfill" at N.J.A.C. 7:26-1.4, as it is defined in the Law, but where the Law uses the undefined term "landfill," the proposed definition uses the term "sanitary landfill."

Legacy landfills were constructed and operated at a time when there was limited or no regulation over the disposal of solid waste. Operators of these landfills did not employ modern environmental safeguards, such as liner systems, to prevent contaminants from entering the groundwater, air, or soils proximate to the landfills. The Solid Waste rules' existing requirement to prepare Closure and Post-Closure Plans applies only to a landfill operating on or after January 1, 1982 (see existing N.J.A.C. 7:26-2A.9(d)). The existing requirement was a result of the passage of the Sanitary Landfill Facility Closure and Contingency Fund Act, (P.L. 1981, c. 306) (the Closure Act), N.J.S.A. 13:1E-100 et seq., amending the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. The Sanitary Landfill Facility Closure and Contingency Fund Act was approved on November 25, 1981, and provided at section 8 that the law would "take effect on the first day of the second month following enactment," which was January 1, 1982. Therefore, when the rule requiring a Closure and Post-Closure Plan was promulgated in 1983, the

Department made it applicable to new sanitary landfills and sanitary landfills that were in operation as of the effective date of the Sanitary Landfill Facility Closure and Contingency Fund Act. (See 14 N.J.R. 883(a), 15 N.J.R. 894(c)). The requirement did not apply to sanitary landfills that had ceased operation prior to January 1, 1982, because these sanitary landfills were not continuing to accept material. The Law allows a legacy landfill or closed sanitary landfill facility to accept new material, under certain circumstances. It is appropriate, therefore, that the proposed rules extend the requirement to prepare Closure and Post-Closure Plans to landfills that otherwise ceased operations prior to January 1, 1982, if they accept material as allowed under the Law.

The Law defines a "closed sanitary landfill facility" as "a sanitary landfill facility, or a portion thereof, for which performance is complete with respect to all activities associated with the design, installation, purchase, or construction of all measures, structures, or equipment required by the Department in order to prevent, minimize, or monitor pollution or health hazards resulting from a sanitary landfill facility subsequent to the termination of operations at any portion thereof, including, but not necessarily limited to, the placement of earthen or vegetative cover, and the installation of methane gas vents, monitors, and air pollution control devices and leachate monitoring wells or collection systems at the site of any sanitary landfill facility." The Department proposes to add the statutory definition of "closed sanitary landfill facility" to the definitions applicable to N.J.A.C. 7:26-2A.9, closure and post-closure care of sanitary landfills, at N.J.A.C. 7:26-2A.9(b). The proposed requirements for closed sanitary landfill facilities have the potential to impact every sanitary landfill in the State, including a currently operating

sanitary landfill, because at some point every sanitary landfill, or portion thereof, should be closed.

The Law defines "closure" or "closure costs" as "activities and costs associated with the design, purchase, reuse, construction, or maintenance of all measures deemed necessary by the Department, pursuant to law, in order to prevent, minimize, or monitor pollution or health hazards resulting from a legacy landfill or any other landfill subsequent to the termination of operations at any portion thereof, including, but not necessarily limited to, the costs of general liability insurance, the placement or regrading of fill material, the placement of final earthen or vegetative cover, the installation of methane gas vents or monitors and leachate monitoring wells or collection systems, and long-term operations and maintenance, at the site of a legacy landfill or any other landfill that is not listed on the National Priorities List pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9605." A landfill that is listed on the National Priorities List is commonly known as a "Superfund" site. The Law's definition of "closure" or "closure costs" is consistent with the definition of "closure" in the Department's rules at N.J.A.C. 7:26-2A.9(b). The Department proposes to amend the term defined at N.J.A.C. 7:26-2A.9(b), "closure," to include "closure costs" in the alternative, as in the Law.

**Closure and Post-Closure Plan Requirements**

The Law at N.J.S.A. 13:1E-125.5 and 125.6 requires the owner or operator of a legacy landfill or closed sanitary landfill facility that accepts recyclable material, contaminated soil,

wastewater treatment residual material, or construction debris to establish and maintain financial assurance in an amount necessary to pay for all closure costs and an escrow account to pay for post-closure costs. To determine the amount of financial assurance that is required, the Department must determine the activities and costs that constitute "closure" of the legacy landfill or closed sanitary landfill facility. As set forth above, the Law defines "closure" or "closure costs" to mean "activities and costs associated with the design, purchase, reuse, construction, or maintenance of all measures deemed necessary by the Department of Environmental Protection … in order to prevent, minimize, or monitor pollution or health hazards resulting from a legacy landfill or any other landfill subsequent to the termination of operations at any portion thereof …" (See N.J.S.A. 13:1E-125.1)

"Closure" commences at a sanitary landfill when receipt of materials for disposal ends at all or a portion of the facility. During the closure period, the owner or operator constructs and implements environmental safeguards required by law or by the approved Closure and Post Closure Plan, and the facility's approved engineering design. Once closure is properly complete, the owner or operator enters a period of "post-closure care," which is defined as "activities necessary to maintain and monitor a sanitary landfill in accordance with an approved engineering design and applicable laws and rules after the landfill has been properly closed." (See the proposed amended definition of "'closure' or 'closure costs,'" and the existing definition of "post-closure care" N.J.A.C. 7:26-2A.9(b))

The existing rules at N.J.A.C. 7:26-2A.9 establish the requirements for closure and post-closure care of sanitary landfills. These requirements include the preparation of a Closure and

Post-Closure Plan, which consists of a Closure and Post-Closure Care Plan and a Closure and Post-Closure Financial Plan. The Closure and Post-Closure Plan is, in essence, a description of how the owner or operator will ultimately close the sanitary landfill, and how the owner or operator will pay the costs associated with closing the landfill and maintaining the necessary environmental controls until the controls are no longer necessary to protect human health and the environment (see N.J.A.C. 7:26-2A.9(e) and (f)). As discussed above, the existing Closure and Post-Closure Plan requirements of N.J.A.C. 7:26-2A.9 apply only to a sanitary landfill that was operating on or after January 1, 1982. The Department proposes to extend the existing rules' Closure and Post-Closure Plan requirements to all landfills from the time a landfill accepts any type of material, as indicated in the proposed amendments to N.J.A.C. 7:26-2A.9(a). The Department proposes to organize the contents of N.J.A.C. 7:26-2A.9(a) into a list, for clarity.

While the Law does not expressly require the owner or operator of a legacy landfill or closed sanitary landfill facility to address covered activities through the development and approval of a Closure and Post-Closure Plan, these activities are to be performed under some form of Department authorization, whether it is a Closure and Post-Closure Plan, Administrative Consent Order, agreement, permit, or approval (N.J.S.A. 13:1E-125.2 and 125.7). The Department believes the most appropriate mechanism to evaluate compliance with the Law and to make the determinations required of the Department by the Law is through submittal and approval of a Closure and Post-Closure Plan. The requirements for Closure and Post-Closure Plans in the existing rules, specifically, the need to address final cover, final cover vegetation, run-on and run-off controls, leachate collection and control, gas collection and venting, ground

water monitoring, access controls, and conformance with the surroundings, as well as monitoring and maintenance of these systems, are intended to address the same conditions that must be addressed when closing or redeveloping a legacy landfill or closed sanitary landfill facility. Accordingly, extending the existing requirements to all landfills is appropriate.

As set forth at proposed amended N.J.A.C. 7:26-2A.9(d)2, the Closure and Post-Closure Plan requirements apply to a landfill that is no longer authorized to accept solid waste for disposal only if the owner or operator undertakes a closure activity, constructs any site improvements, or accepts, for any reason, solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or any other material. Before any of these activities begins, the owner or operator must have Department-approved plans to close the sanitary landfill, pay for that closure, and pay for any controls until such time as the controls are no longer needed to protect human health and the environment. These plans are the Closure and Post-Closure Care Plan and the Closure and Post-Closure Financial Plan.

The specific contents of a Closure and Post-Closure Care Plan are set forth at existing N.J.A.C. 7:26-2A.9(e). Many sanitary landfills began their operations before the standards for modern sanitary landfills were adopted. For some of these sites, the Department has little information of their early operations or environmental conditions. Therefore, the proposed amended rule requires the Closure and Post-Closure Care Plan to include an assessment of the sanitary landfill and its surroundings so that the Department can evaluate whether the plan's proposed environmental controls, maintenance, and monitoring measures meet the requirements

of the Solid Waste Management Act, Sanitary Landfill Closure and Contingency Fund Act, and Legacy Landfill Law. The assessment includes development of baseline data about conditions at the landfill that may have an impact on public health and safety and the environment, as well as information about nearby receptors potentially affected by the landfill. It also includes information about the landfill's operation, ownership, and existing and future uses. If information for the assessment is not already available, the owner or operator of the landfill must investigate. This may require the owner or operator to obtain a sanitary landfill disruption approval under N.J.A.C. 7:26-2A.8(j) before investigating conditions within the landfill itself. The Department will use this information to evaluate, based upon the site-specific conditions, the controls and closure measures that are in the proposed Closure and Post-Closure Care Plan.

Under certain circumstances, the proposed rule requires municipal site plan approval as part of the Closure and Post-Closure Care Plan for closure activities at a legacy landfill. The closure of a sanitary landfill may involve bringing additional material to the landfill, and could include subsequent redevelopment of the property, which may be of interest to the municipality in which a sanitary landfill is located. Additionally, the proposed rule requires site plan approval as part of the Closure and Post-Closure Care Plan any time the owner or operator of a closed sanitary landfill facility proposes to accept solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or any other waste or material. The Department will accept preliminary site plan approval at the time the Closure and Post-Closure Care Plan is submitted to the Department; however, the final municipal site plan approval must be obtained and submitted to the Department before closure

activities or acceptance of any material at the sanitary landfill begins. If the municipality does not require site plan approval for the closure or redevelopment activities at a legacy landfill, or for the acceptance of additional material at a closed sanitary landfill facility, the Department will accept the municipality's written statement to that effect. Further discussion of municipal site plan approval is set forth below, under the heading Municipal Site Plan Approval.

The existing rule requires the Closure and Post-Closure Care Plan to provide for the design and implementation of the closure of the landfill, as set forth in existing N.J.A.C. 7:26-2A.9(e)2. The proposed rule, recodified with amendments as N.J.A.C. 7:26-2A.9(e)4, requires an engineering report that includes the items in existing N.J.A.C. 7:26-2A.9(e)2, and also includes a program for monitoring $H_2S$ if required by proposed N.J.A.C. 7:26-2A.7(h)10 due to an odor complaint or exceedance of the $H_2S$ air quality standard, discussed below, and a material acceptance protocol.

"Material acceptance protocol" is a new term, proposed to be defined at N.J.A.C. 7:26-2A.9(b). A material acceptance protocol is a document setting forth the types, quantities, uses, and specifications of material proposed for acceptance subsequent to termination of solid waste disposal operations at a sanitary landfill, or any portion thereof, and the procedures to be implemented by the owner or operator to accept and manage such material. For example, the owner or operator may propose to accept some material strictly for raising the grade of the sanitary landfill, while other material may be used as part of the engineered environmental cap. If the material must meet certain physical, geotechnical, and chemical specifications before the owner or operator may accept it, then the material acceptance protocol shall include the means of

evaluating the material for acceptance or rejection. The proposed rule lists items required to be included in a material acceptance protocol. In addition to the information discussed above, the protocol must include a discussion of any potential negative impacts to human health, safety, and the environment, a description of the application and evaluation process for pre-acceptance of a material from each specific source, a description of on-going monitoring of a source material, a description of sample collection, laboratory analysis, quality assurance, and data deliverable requirements for material evaluation, a description of the tracking, quality control, and inspection procedures to ensure all shipments of material received are approved materials from approved sources, a description of shipment rejection procedures, a description of on-site materials weighing, handling, stockpiling, and placement procedures, and a description of the documentation to be used to demonstrate compliance with all aspects of the protocol.

As in the existing rule at N.J.A.C. 7:26-2A.9(e)1, a New Jersey licensed professional engineer must certify the Closure and Post-Closure Plan. The existing rule requires only that the professional engineer certify that the plan provides "for closure and post-closure care of the sanitary landfill." The proposed rule is more specific, and requires the professional engineer to certify that the engineering drawings, specifications, and reports applicable to the plan are in compliance with the Department's rules. Since the existing rules require engineering drawings, specifications, and reports that detail the "closure and post-closure care of the sanitary landfill," and the closure and post-closure care must be in accordance with the rules, the proposed language is not materially different from the existing requirements; the proposed amended rule more clearly states the matters to which the professional engineer is certifying.

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Existing N.J.A.C. 7:26-2A.9(d)6 allows an owner or operator to apply for approval to amend the Closure and Post-Closure Plan (either the Closure and Post-Closure Care Plan, the Closure and Post-Closure Financial Plan, or both, as necessary) at any time during the sanitary landfill's operation, closure, or post-closure care period. The Department proposes to amend the rule to require the owner or operator to obtain Department approval to modify the Closure and Post-Closure Plan prior to undertaking any activity that is not contained in an approved Closure and Post-Closure Plan, or changing any portion of the approved plan. The existing rule does not specifically state that approval is required in advance, which the Department believes is necessary. The examples of changes to an approved plan enumerated in proposed amended N.J.A.C. 7:26-2A.9(d)6 could affect the landfill's impact on the surrounding area, the duration of the closure period, the cost of closure and post-closure activities, or the ability of the owner or operator to pay for closure and post-closure; therefore, the Department must review and approve any proposed changes to a plan before the facility implements any such changes. When referring to a change in a Closure and Post-Closure Plan, the Department proposes to replace "amend" and "amendment" with "modify" and "modification." The Solid Waste rules generally use the term "modification" when referring to a change in a Department-approved document, such as a permit or Operation and Maintenance Manual (see, for example, N.J.A.C. 7:26-1.9).

A change of ownership of a sanitary landfill is an example of a change that requires modification of a Closure and Post-Closure Plan under the proposed rules. As set forth at proposed new N.J.A.C. 7:26-2A.9(d)7, the transfer of a controlling interest in the stock or assets of any entity owning or operating a sanitary landfill constitutes a change in the ownership or

operational control of the facility. Therefore, the proposed rule requires a modification of the Closure and Post-Closure Plan if there is a transfer of a controlling interest in the stock or assets of any entity owning or operating a sanitary landfill.

As in the existing rule at N.J.A.C. 7:26-2A.9(d)2 and 3, the proposed amended rule requires a Closure and Post-Closure Plan to be submitted in accordance with a schedule, with the date of submittal dependent on the date the landfill was in operation. The proposed amended rule provides specific dates where the existing rule refers to dates relative to the effective date of the section, which is June 6, 1983. The proposed amended rule adds submittal requirements for a legacy landfill or closed sanitary landfill facility. A legacy landfill must submit a Closure and Post-Closure Plan before undertaking any closure activity or accepting any material. A closed sanitary landfill facility that was in operation in 1982 or later should have an approved Closure and Post-Closure Plan, as required under the existing rule. The facility must modify its Closure and Post-Closure Plan to accept any material if its approved Closure and Post-Closure Plan does not include that activity. A closed sanitary landfill that was not in operation in 1982 or later may not have an approved Closure and Post-Closure Plan, because the existing rules do not apply to such facilities. Like a legacy landfill, a closed sanitary landfill that does not have an approved Closure and Post-Closure Plan must submit a plan for Department approval prior to accepting material.

The Department proposes several non-substantive amendments to N.J.A.C. 7:26-2A.9(d). Existing N.J.A.C. 7:26-2A.9(d)1 begins with the statement that no person shall construct or operate a sanitary landfill without the Department's approval of a Closure and Post-Closure Plan.

This beginning statement of N.J.A.C. 7:26-2A.9(d)1 is relocated to amended N.J.A.C. 7:26-2A.9(d)2. The Department proposes to delete N.J.A.C. 7:26-2A.9(d)10. The substantive requirements of N.J.A.C. 7:26-2A.9(d)10, which address the New Jersey licensed professional engineer's as-built certification of sanitary landfill closure, are relocated to proposed new N.J.A.C. 7:26-2A.9(c)6 and 7. N.J.A.C. 7:26-2A.9(d) sets forth the requirements of a Closure and Post-Closure Plan. The submittal of a professional engineer's as-built closure certification is a requirement that must be met upon completion of closure; it is not part of a Closure and Post-Closure Plan. Therefore, the professional engineer's as-built closure certification is more appropriately located in the general closure and post-closure care requirements at N.J.A.C. 7:26-2A.9(c). The Department proposes to update cross-references, as necessary. Further discussion of proposed amendments relating to professional engineers is set forth below.

**New Jersey Licensed Professional Engineers**

The Law assigns an important role to the licensed professional engineer. N.J.S.A. 13:1E-125.7 requires the owner or operator of a legacy landfill or a closed sanitary landfill facility who undertakes any activity that includes the placement or disposal of any material, regrading, compression, venting, construction, or installation of monitors or wells to hire a New Jersey licensed professional engineer to perform the closure and to oversee any other activities. The New Jersey licensed professional engineer must certify on a quarterly basis that all wastes and materials accepted at the site for any purpose are weighed, sampled, and tested according to a protocol approved in advance by the Department (the "material acceptance protocol," discussed

above), and that all provisions and prohibitions of any administrative consent order, closure or post-closure plans, permits, or approvals are complied with.

Through the proposed amendments to N.J.A.C. 7:26-2A.9, the Department is codifying the Law's requirements. In further recognition of the importance of the licensed professional engineer, the Department proposes to amend N.J.A.C. 7:26-2A.9 to apply the Law's requirements with regard to licensed professional engineers to all sanitary landfills, whether they are operating, or are legacy landfills or closed sanitary landfill facilities. The Department's concerns regarding acceptance of materials and compliance with applicable standards are applicable to operating sanitary landfills, as well as to those facilities covered under the Law. The proposed amendments will further ensure that activities at sanitary landfills are conducted in accordance with the applicable rules and Department approvals.

As stated above, the Law requires a New Jersey licensed professional engineer to oversee placement of material, regrading of the site, compression, venting, construction, and installation of monitors or wells (see N.J.S.A. 13:1E-127.7). The sanitary landfill disruption rules at N.J.A.C. 7:26-2A.8(j) allow the Department to authorize these activities through a Sanitary Landfill Disruption Approval. Therefore, the Department proposes to amend the sanitary landfill disruption rules at N.J.A.C. 7:26-2A.8(j) to require a New Jersey licensed professional engineer to oversee all disruption activities at sanitary landfills, and certify the quarterly reports and final reports related to the disruption. This is consistent with the Department's technical manual governing sanitary landfills, which requires a professional engineer to certify the application documents submitted to the Department as part of disruption activities.

A New Jersey licensed professional engineer must also oversee the closure activities at the sanitary landfill, and submit quarterly reports, as set forth at proposed new N.J.A.C. 7:26-2A.9(c)4 through 7. Although the requirement to submit quarterly reports during the closure period is new, certification of all Closure and Post-Closure Plan submittals by a New Jersey licensed professional engineer is not new. The requirement that a New Jersey licensed professional engineer oversee the closure activities is also not new, although it is not as clearly stated in the existing rules as in the proposed rules. Existing N.J.A.C. 7:26-2A.9(d)10i presumes that the owner or operator of a sanitary landfill is utilizing the services of a professional engineer (the rule requires the professional engineer to certify "that he or she has supervised the inspection of the construction of each major phase of the sanitary landfill's closure"). Proposed N.J.A.C. 7:26-2A.9(c) expressly states this requirement.

**Municipal Site Plan Approval**

The Law at N.J.S.A. 13:1E-125.3 requires "any person who undertakes the closure of a legacy landfill, or the owner or operator of a closed sanitary landfill facility, who accepts for any reason, solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or any other waste or material, [to] apply for and obtain site plan approval pursuant to the provisions of the 'Municipal Land Use Law, [N.J.S.A. 40:55D-1 et seq.].'" Implementation of this provision will ensure that a municipality in which a legacy landfill or closed sanitary landfill facility is located will know of closure and other activities at the site and will have an opportunity to review the proposed project for

consistency with its site planning requirements. The Department proposes at N.J.A.C. 7:26-2A.9(d) and (e)2 to require municipal site plan approval, or a written statement that such approval is not required, as part of a Closure and Post-Closure Care Plan or modified plan approval by the Department.

As discussed above in the Summary of proposed amendments to the Closure and Post-Closure Plan requirements, if the municipality requires site plan approval for the activities at the sanitary landfill, the Department will require documentation of either preliminary or final site plan approval to be included as part of the Closure and Post-Closure Care Plan that is submitted for review by the Department. However, final site plan approval must be obtained and submitted to the Department before the owner or operator undertakes any closure activity or accepts any material. Early in the rulemaking process, the Department considered requiring that the Closure and Post-Closure Care Plan submittal for Department review include final site plan approval. During information gathering sessions, representatives of the regulated community and local governments advised the Department that the cost and expense of obtaining final site plan approval could be significant. They further advised that the Department's review and comment on the owner or operator's submittal could result in the need for changes to the site plan, which would in turn require the applicant to seek municipal re-approval of any modifications. Further, the Department was informed that some municipalities do not issue final site plan approval until all State-required permits and approvals are obtained. To address these concerns, if a municipality issues preliminary site plan approvals, the Department will accept the preliminary approval as part of the Closure and Post-Closure Care Plan when it is submitted to the

Department for approval. In this way, the municipality is made aware of the activities at the legacy landfill or closed sanitary landfill facility and the applicant for approval of the Closure and Post-Closure Care Plan can incorporate any Department requirements into the final site plan without repeated applications to the municipality. Further, if the municipality places conditions on the activities, those conditions can be made part of the Closure and Post-Closure Care Plan, if appropriate.

Not every Closure and Post-Closure Care Plan or modification requires municipal site plan approval. The Law requires site plan approval only for closure of a legacy landfill, and acceptance of various materials at a closed sanitary landfill facility. Although an owner or operator of a closed sanitary landfill facility who accepts solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or any other waste or material must obtain site plan approval, not every entity who undertakes closure of a legacy landfill must obtain site plan approval. This is based on the definition of "person" in the Law.

The Law defines "person" as an "individual, trust, firm, joint stock company, business concern, and corporation, including, but not limited to, a partnership, limited liability company, or association" and also any responsible corporate official. The Law's definition of "person" differs from that in the existing Solid Waste rules at N.J.A.C. 7:26-1.4 ("an individual, trust, firm, joint stock company, Federal Agency, corporation (including a government corporation), corporate official, partnership, association, State, municipality, commission, political subdivision of a State, or any interstate body"). Federal agencies, government corporations, states,

municipalities, commissions, political subdivisions of a state, and any interstate bodies are not "persons" under the Law. Therefore, consistent with the Law, the proposed rule requires individuals, trusts, firms, joint stock companies, business concerns, and corporations, including, but not limited to, partnerships, limited liability companies, and associations, who are undertaking closure of a legacy landfill to obtain municipal site plan approval. The proposed rule does not require Federal agencies, government corporations, states, municipalities, commissions, political subdivisions of a state, and any interstate bodies to obtain municipal site plan approval to undertake closure of a legacy landfill.

**Post-Closure Evaluation**

As discussed above in the Summary of amendments to Closure and Post-Closure Plan requirements, when operations at all or a portion of a sanitary landfill end, closure activities at the landfill are implemented, and then post-closure care activities are implemented. Under the existing rules, the post-closure care period "shall continue for 30 years after the date of completing closure of the sanitary landfill," or for a different period, as circumstances require. The Department may reduce the post-closure care period "when it has been adequately demonstrated that the reduced period is sufficient to protect human health and the environment." Similarly, the Department may extend the post-closure care period "upon a finding that such extended period is necessary to protect human health and/or the environment" (see existing N.J.A.C. 7:26-2A.9(c)5).

The existing rule does not require that landfill owners and operators provide the Department with information necessary for it to determine whether a shortened or extended post-closure care period is sufficient or necessary. As a result, the Department often does not have sufficient information to make such a determination, and some owners or operators discontinue post-closure care before the environmental conditions at the landfill warrant termination of such activities. Thirty years has almost become the de facto period for post-closure care activities, with the focus on the 30-year period, rather than the time necessary to protect human health and the environment.

To ensure that post-closure care activities are performed for as long as necessary to protect human health and the environment, proposed new N.J.A.C. 7:26-2A.9(c)11 requires an owner or operator to submit a post-closure evaluation report to the Department every 10 years, on the anniversary date of the completion of closure. For sanitary landfills that, as of the effective date of this proposed rule amendment, are within 10 years of completion of the post-closure care period as defined in existing N.J.A.C. 7:26-2A.9(c)5 or the Closure and Post-Closure Plan Approval, the first report will be due no later than one year after the effective date of the proposed amendment. In addition, owners or operators must submit a post-closure evaluation report between two and three years before the scheduled end of the initial 30-year post-closure care period and between two and three years prior to the scheduled end of each post-closure care period extension. If an owner or operator does not timely submit the post-closure evaluation report, the Department will extend the post-closure care period until no less than two years after the owner or operator submits the report. The information in the report will help the

Department determine whether post-closure care activities must continue to protect human health and the environment (for example, due to landfill gas production rates or leachate quality). The post-closure evaluation report is a detailed document, as discussed below. Therefore, the Department wants to be sure that it has sufficient time to review the report before the scheduled end of the post-closure care period, and evaluate whether human health and the environment would be appropriately protected if the post-closure care period were to end as scheduled, in accordance with the standard at existing N.J.A.C. 7:26-2A.9(c)5ii.

The Department considered requiring post-closure evaluation reports every five years, rather than every 10 years. The Department believes that it is important for sanitary landfill owners and operators to know as soon as possible whether the sanitary landfill's post-closure condition is on track for the scheduled end of the post-closure care period, and the more frequent reporting would provide that information. Because financial assurance and insurance must remain in place for the entire post-closure care period, the length of the post-closure care period materially impacts the financial requirements (see the Summary of financial assurance requirements and the Economic Impact below). However, at meetings held as part of this rulemaking, stakeholders expressed concern about the cost of preparing the post-closure evaluation report. Based on these comments, the Department proposes the compromise of an interval of 10 years between reports until the landfill is nearing the end of the scheduled post-closure care period.

Under the existing rules at N.J.A.C. 7:26-2A.8(h) and 2A.9(e)2, regular post-closure reports are required for various monitoring requirements based on the Department's concerns at

a landfill. For example, perimeter gas monitoring may be required on a quarterly basis with the associated report submitted after completion of the monitoring. These regular monitoring reports are usually required as part of the approval of the Closure and Post-Closure Plan. Such reports are important to the Department's oversight of the sanitary landfill. However, these reports provide only current, and sometimes historical, data reflecting conditions at the site, but do not provide any comprehensive assessments, trends analyses, or future projections of the post-closure care needs of the sanitary landfill. The proposed post-closure evaluation report will provide more than the current or historical data.

The post-closure evaluation report must be certified by a New Jersey licensed professional engineer and include a summary of post-closure care activities during the previous 10-year period, a certification of the current compliance with the approved Closure and Post-Closure Plan, an analysis of monitoring data and the need for modifications to the Plan, and an evaluation of the remaining post-closure care period. The post-closure evaluation report must also include an evaluation of whether extension or reduction of the post-closure care period is warranted based on the post-closure conditions. Although the Department will evaluate the report and determine whether the post-closure care period should be extended, reduced, or should remain as scheduled, the post-closure evaluation report is also an opportunity for an owner or operator to present its own evaluation. If the sanitary landfill is exceeding expectations with regard to post-closure, and the post-closure care period can end sooner than scheduled, the owner or operator may make that demonstration, as it may under existing N.J.A.C. 7:26-2A.9(c)5i. If the post-closure condition of the sanitary landfill is such that the Department is

likely to require an extension of the post-closure care period, the owner or operator may use the post-closure evaluation report to present its own science-based estimate of the length of the extension.

**Financial Assurance and Escrow**

The Law at N.J.S.A. 13:1E-125.5 requires the owners or operators of legacy landfills and closed sanitary landfill facilities that accept recyclable material, contaminated soil, wastewater treatment residual material, or construction debris to establish and maintain financial assurance in an amount necessary to pay for all closure costs. The Law at N.J.S.A. 13:1E-125.6 requires these same owners and operators to establish and make monthly deposits into an escrow account to pay for post-closure costs. The Department proposes new N.J.A.C. 7:26-2A.9(h) to require owners and operators of these landfills to include in their Closure and Post-Closure Financial Plan information regarding the costs and expenses associated with closure and post-closure care requirements, closure financial assurance documents, the quantities of materials the sanitary landfill will accept, and the deposits into a post-closure escrow account as a result of accepting the materials. Proposed new N.J.A.C. 7:26-2A.9(j) sets forth requirements for financial stability of financial assurance providers and for financial assurance instruments, including required language of such instruments. The requirements for a legacy landfill escrow account under the Law are at proposed N.J.A.C. 7:26-2A.9(i).

<u>Financial Assurance</u>

The Law requires financial assurance in an amount necessary to cover "**all** closure costs," N.J.S.A. 13:1E-125.5(a) (emphasis added), in the form of a surety bond, letter of credit, or line of credit, individually or in combination, that the Department may draw upon directly to fund closure in the case of termination of the approval for the project. The amount of financial assurance is to be based on a closure cost estimate certified by a New Jersey licensed professional engineer, or as provided in an administrative consent order, a Department order or directive, or as approved by a court. The closure cost estimate must be revised and recertified by a professional engineer every two years after commencement of activities at the landfill, and the financial assurance amount must be increased to cover any increase in closure cost.

The Law at N.J.S.A. 13:1E-125.6 establishes a separate mechanism to address funding for post-closure expenses. Therefore, the Department concludes that the closure financial assurance required by N.J.S.A. 13:1E-125.5 does not include maintenance, operation, and monitoring expenses incurred after closure is complete and certified by a New Jersey licensed professional engineer. The Department is proposing to require that two separate cost estimates, one for closure and one for post-closure, be submitted as a part of the Closure and Post-Closure Financial Plan.

For the purpose of determining required financial assurance amounts, costs for closure activities include, but are not limited to, costs for the design, purchase, installation, and construction of all environmental safeguards for closure and other closure related costs incurred in the period prior to and during closure construction before closure certification is submitted. Closure costs also include the costs to manage materials received at a closed sanitary landfill

facility, to the extent these materials are not approved for use as final cover, and any costs associated with upgrades to environmental safeguards due to the acceptance of such material. The purpose of the financial assurance is to provide the Department with funds to draw on to complete closure if approval of the project is terminated, but not to fund activities related to redevelopment of the site. The Department is making it clear in the rules that the closure costs do not include costs for planned redevelopment or site improvements that are not related to the required closure environmental safeguards, as proposed in N.J.A.C. 7:26-2A.9(h)1ii.

The proposed rules affect cost estimates for both closure and post-closure to ensure that the amounts estimated are sufficient to cover the Department's expenses if it becomes necessary for the Department to complete the work. The cost estimates shall reflect the cost of closure and post-closure care of the sanitary landfill at the point when the extent of the project and condition of the site would make closure and post-closure care most expensive, be based on how much it would cost a third party (someone other than the owner or operator) to undertake closure, and take into consideration the effect of inflation on closure and post-closure expenses.

To demonstrate that adequate financial assurance is in place and to allow the Department to draw directly on the financial instrument if necessary, the proposed rules require that the Closure and Post-Closure Financial Plan include original signed surety bonds, letters of credit, or lines of credit, as proposed in N.J.A.C. 7:26-2A.9(h)2. In addition, if any part of the financial assurance is provided by a surety bond or letter of credit, there must be a standby trust established to receive any funds from the surety bond or letter of credit in the event the Department must draw upon the financial assurance. When the standby trust is required, an

original standby trust agreement must also be included in the Financial Plan. The standby trust is discussed further in the Economic Impact statement, below.

The Department is proposing minimum standards of acceptability of providers of any financial instrument used to comply with the financial assurance requirement of the Law. Such standards are necessary to ensure that the provider is licensed to do business in the State and has the financial ability and stability to fulfill its obligations if the Department must draw on the financial assurance to complete closure.

Any surety bond, letter of credit, and standby trust agreement used to comply with the rule must comply with the form language set forth in the proposed rule. This language has been modeled after similar requirements in the Federal RCRA Hazardous Waste Regulations at 40 CFR Part 264 and New Jersey's Recycling Rules at N.J.A.C. 7:26A-3.4. Requiring uniform language in the instruments ensures that they are acceptable to the Department, and allows the Department to easily review the instrument.

The proposed rules, like the Law, allow the use of a line of credit to satisfy the financial assurance requirements. A line of credit must identify the applicable sanitary landfill, be issued for at least one-year with automatic extensions of at least one year unless notifications to the owner or operator and Department are provided, indicate that the provider shall only disburse funds that the Department approves in writing and that the funds shall be utilized solely for the purposes of conducting closure of the sanitary landfill, and specify that the Department may access the line of credit to pay for the costs of closure of the sanitary landfill.

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Legacy landfill escrow accounts

As discussed above, the Law at N.J.S.A. 13:1E-125.6 requires the owner or operator of a legacy landfill or closed sanitary landfill facility that accepts any recyclable material, contaminated soil, wastewater treatment residual material, or construction debris to establish an interest-bearing account, known as an escrow account, to be used to pay the cost of post-closure care of the sanitary landfill. The owner or operator must deposit into the account on a monthly basis a minimum of $1.00 per ton for recyclable material, contaminated soil, wastewater treatment residual material, and construction debris accepted at the site, as proposed in N.J.A.C. 7:26-2A.9(h)3. According to the Law, the Department is to determine the actual per ton amount for deposit based on a review of the estimated costs of post-closure monitoring and operations. Withdrawals from the account can only be made with approval of the Department.

To implement the post-closure escrow account provision of the Law, the Department is proposing to require that the Closure and Post-Closure Financial Plan include a post-closure cost estimate. Post-closure costs include costs incurred during the post-closure care period, as defined in existing N.J.A.C. 7:26-2A.9(c)5, for the operation, maintenance, and monitoring of the sanitary landfill's environmental safeguards after the sanitary landfill has been properly closed. To ensure that adequate funds are available in case the Department must perform post-closure care of the landfill, the landfill owner or operator must calculate costs based on how much it would cost a third party (someone other than the owner or operator) to undertake closure, and the estimates must take inflation into consideration, as proposed in N.J.A.C. 7:26-2A.9(h)1iv and v.

The Law does not explicitly require funding of a post-closure escrow account to be sufficient to cover the entire cost of post-closure care. It is not practical in many cases to require that the funds from acceptance of material equal the entire cost of post-closure care. For example, projects that may require a relatively small amount of new material to be accepted at the landfill could never charge a per ton rate that is high enough to cover the entire post-closure cost. This should not preclude the owner or operator from accepting such material that may be necessary to proceed with closure activities at the sanitary landfill. Therefore, the Department is proposing that where per-ton escrow payments are not sufficient to pay for all post-closure costs, the owner or operator must identify specific alternative funds that may be dedicated to ensure payment of all post-closure operation, maintenance, and monitoring costs.

The proposed rule at N.J.A.C. 7:26-2A.9(h)3 requires that the Closure and Post-Closure Financial Plan state the balance of any escrow account for the landfill, evaluate the quantity of escrow funding material to be accepted, propose an amount per ton to deposit into the escrow account, and identify other dedicated funds to ensure the entire cost of post-closure care. If a closed sanitary landfill facility that operated on or after January 1, 1982, already has funds in an escrow account that was established pursuant to the existing rules, those escrowed funds should be considered when setting the amount to deposit in the Law's escrow account.

The proposed rule requires that a legacy landfill escrow account shall be based upon an escrow agreement provided by the Department and that the agreement shall be executed by the escrow agent and the owner or operator of the legacy landfill or closed sanitary landfill facility.

This is consistent with the Department's existing escrow account requirements for other sanitary landfills at N.J.A.C. 7:26-2A.9(g)8.

The Law's escrow account is separate from the escrow account required of sanitary landfills at existing N.J.A.C. 7:26-2A.9(f) and (g). Existing N.J.A.C. 7:26-2A.9(f) and (g) establish requirements for escrow accounts required under the Sanitary Landfill Closure and Contingency Fund Act (or Closure Act), N.J.S.A. 13:1E-100 et seq. The Law is silent with regard to combining these two types of escrow accounts; therefore, the proposed amended rule addresses them separately. The Department proposes to delete the definition of "escrow account" at N.J.A.C. 7:26-2A.9(b), and add a new definition of "Closure Act escrow account," which contains the language of the existing "escrow account" definition. An escrow account required by the Law to pay for post-closure care expenses is referred to as a "legacy landfill escrow account," for which the Department proposes a definition. References to the term "escrow account" throughout N.J.A.C. 7:26-2A.9 are replaced with "Closure Act escrow account."

**Liability Insurance**

At N.J.S.A. 13:1E-125.5, the Law requires owners or operators of legacy landfills or closed sanitary landfill facilities that accept recyclable materials, contaminated soil, wastewater treatment residual material, or construction debris to maintain a general liability insurance policy in an amount determined in advance by the Department to pay for damages or claims resulting from operations or closure of the legacy landfill or closed sanitary landfill facility. The Law

requires that general liability insurance coverage be maintained through the entirety of closure and post-closure activities.

The Department interprets the term "general liability insurance" in the Law as requiring pollution liability coverage as part of any general liability insurance policy held by landfill owners and operators. This interpretation is based on the Law's requirement that the insurance "pay for damages or claims resulting from operations or closure of the legacy landfill or closed sanitary landfill facility." The language employed by the Legislature in the Law is akin to language used by the Legislature in the Closure Act to define the types of claims payable under the Sanitary Landfill Facility Contingency Fund at N.J.S.A. 13:1E-106(a). There, the Legislature directed that "[t]he fund shall be strictly liable for all direct and indirect damages, no matter by whom sustained, proximately resulting *from the operations or closure of any sanitary landfill*" (emphasis added). The statute defines damages "to include, but not be limited to" claims traditionally insured through pollution liability coverage, including personal injury and property damages by third parties affected by landfill pollutants (see N.J.S.A. 13:1E-106(a)). Insurance specialists that the Department consulted as part of this rulemaking have advised the Department that pollution liability coverage is readily available in the insurance marketplace. The Department has relied on generic pollution liability coverage terms to define the scope of liability coverage required by the proposed rule.

The Department is proposing coverage minimums for pollution liability of at least $4 million per occurrence, with an annual aggregate coverage limit of $8 million. These coverage limits are identical to those required of hazardous waste landfills by the Department and the

United States Environmental Protection Agency under 40 CFR Part 264. Providers of insurance must meet the same minimum requirements as providers of closure financial assurance under these proposed rules. Such requirements are necessary to ensure that the provider is licensed to do business in the State and has the financial ability to fulfill its obligations for liability coverage.

To ensure that the owner or operator has the required liability insurance, the Department is proposing at new N.J.A.C. 7:26-2A.9(h)4 to require that the Financial Plan include Certificate(s) of Insurance demonstrating compliance. The proposed regulation identifies the types of coverage that are required and the limits of the policies. Similar to the requirements for financial assurance instruments, the Department is proposing to require that Certificates of Insurance contain the language set forth at proposed new N.J.A.C. 7:26-2A.9(j)6. The wording of the Certificate of Insurance has been modeled after similar requirements in the Federal RCRA Hazardous Waste Regulations at 40 CFR Part 264. Requiring uniform language ensures that the Certificates of Insurance are acceptable and allows the Department to easily review the insurance certificates. Proposed new N.J.A.C. 7:26-2A.9(j)1 establishes criteria that the company issuing the insurance must meet.

**Definitions of Contaminated Soil, Clean Fill, and Solid Waste**

The term “contaminated soil” is used in several sections of the Law, most notably in N.J.S.A. 13:1E-125.5 and 125.6, which govern financial assurance and escrow accounts, respectively, for legacy landfills or closed sanitary landfill facilities that accept, among other

materials, contaminated soil. The Law does not define the term, nor is the term defined elsewhere in any New Jersey statute or rule. Therefore, it is necessary for the Department to define "contaminated soil" to clearly identify what materials trigger these statutory provisions. "Contaminated soil," as proposed in the Solid Waste rules at N.J.A.C. 7:26-1.4, means soil, soil-like material, or mixtures of soil with other material containing concentrations of one or more contaminants that exceed the most stringent direct contact soil remediation standards as set forth at N.J.A.C. 7:26D, Remediation Standards.

In determining how best to define the term "contaminated soil," the Department looked to the Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-1 et seq. (Brownfield Act), and the implementing rules. The Brownfield Act directs the Department to develop soil remediation standards for residential and non-residential uses that "ensure that the potential for harm to public health and safety and to the environment is minimized to acceptable levels, taking into consideration the location, the surroundings, the intended use of the property, the potential exposure to the discharge and the surrounding ambient conditions, whether naturally occurring or manmade" (see N.J.S.A. 58:10B-12(d) and 58:10B-12(a)). The Department adopted residential and non-residential soil remediation standards at N.J.A.C. 7:26D-4.1 and 4.2, respectively. The residential standards are generally more stringent than the non-residential standards because they are based on greater daily, annual, and lifetime exposure to the contaminated soils for both children and adults. However, the non-residential standards are equal to or more stringent than the residential standards for several contaminants. Under the Brownfield Act, soils with contaminant levels above the residential standards, even at a non-

residential site, are considered to be contaminated soils. The Department has previously explained that "[s]oil with concentrations of hazardous wastes or other hazardous substances between the residential use standard and the non-residential use standard is contaminated soil which, if not properly managed, poses an unacceptable threat to the public health and safety and the environment" (Rule Adoption, Technical Requirements for Site Remediation, 29 N.J.R. 2278(b), 2402 (May 19, 1997) (response to comment 967)).

Further supporting the Department's proposed definition of "contaminated soil" are the Department's Technical Requirements for Site Remediation at N.J.A.C. 7:26E-1.8. The Technical Requirements define "contaminated site" to mean "all portions of environmental media and any location where contamination is emanating, or which has emanated there from, that contain one or more contaminants at a concentration above any remediation standard or screening criterion." Unless the site meets the most stringent remediation standards, it is considered "contaminated." By extension, soil that contains contaminants at levels above "any remediation standard" would similarly be considered contaminated. Therefore, for consistency with the Brownfield Act, to protect public health and safety and the environment, to avoid the creation of new contaminated sites by movement of contaminated soil, and to set a clear, measureable standard, the Department proposes to define contaminated soil using the more stringent value of the residential or non-residential direct contact soil remediation standards.

The proposed definition of contaminated soil presents a conflict with the existing definition of "clean fill." "Clean fill" is defined at N.J.A.C. 7:26-1.4 and 7:26A-1.3 to mean:

> [U]ncontaminated nonwater-soluble, nondecomposable, inert solid such as rock, soil, gravel, concrete, glass and/or clay or ceramic products. Clean fill shall not mean processed or unprocessed mixed construction and demolition debris, including, but not limited to, wallboard, plastic, wood or metal. The non-water soluble, non decomposable inert products generated from an approved Class B recycling facility are considered clean fill.

Based on the existing definition, non-water-soluble, non-decomposable inert products generated from an approved Class B recycling facility are considered clean fill. However, based on the Department's research, Class B products do not always meet the more stringent of the residential or non-residential direct contact soil remediation standards. Therefore, keeping the existing definition of "clean fill" would result in the possibility of the same material meeting both the definition of "clean fill" and the definition of "contaminated soil." To resolve the conflict and to eliminate the possible misperception that all Class B products meet the more stringent of the residential or non-residential direct contact soil remediation standards, the Department is proposing to delete the definition of "clean fill" from both the Solid Waste rules at N.J.A.C. 7:26-1.4 and the Recycling Rules at N.J.A.C. 7:26A-1.3. The term "clean fill" is used only twice in the Solid Waste rules, at N.J.A.C. 7:26-2A.4(b) and 2A.8(b)8iii. It is not used at all in the Recycling Rules. The Department is proposing to delete N.J.A.C. 7:26-2A.8(b)8iii and amend N.J.A.C. 7:26-2A.4(b) to remove the reference to "clean fill," as discussed below.

The Department proposes to amend the definition of solid waste at N.J.A.C. 7:26-1.6(a) to clarify that processed or unprocessed mixed construction and demolition debris, including, but

not limited to, wallboard, plastic, wood or metal, are solid wastes. These materials are excluded from the existing definition of "clean fill" to make clear that they are characterized as "solid waste." With the proposed deletion of "clean fill" at N.J.A.C. 7:26-1.4, however, it is now necessary to add these materials to the definition of solid waste.

The Department uses the definition of "clean fill" not only to identify material as solid waste, but to differentiate certain other materials from solid waste. At new N.J.A.C. 7:26-1.6(a)6, the Department proposes to exempt non-water-soluble, non-decomposable, inert solids, such as rock, soil, gravel, concrete, glass, clay, or ceramic products from the definition of solid waste, provided these materials do not contain contaminant concentrations exceeding the more stringent of the residential or non-residential direct contact soil remediation standards. This is consistent with the existing definition of clean fill. The definition of clean fill used the term "uncontaminated." The replacement of the term "uncontaminated" in the proposed amended definition of "solid waste" with the reference to the soil remediation standards is consistent with the proposed new definition of "contaminated soil." It should be noted that when non-water-soluble, non-decomposable, inert solids, such as rock, soil, gravel, concrete, glass, clay, or ceramics are stored for excessive periods of time with no apparent market, are abandoned, or are used in an improper way (that is, placed without regard to proper particle sizing and compaction), these materials can harbor rodents, insects, or other vectors, cause excessive dust and erosion, and present safety hazards. Under these circumstances, they may be regulated as solid waste, consistent with N.J.A.C. 7:26-1.6. The existing language in the definition of "clean fill" that addresses "non-water-soluble, non-decomposable inert products generated from an

approved Class B recycling facility" is not carried over into the proposed exemption from the definition of solid waste. Therefore, Class B products will not be categorically excluded from being classified as solid waste.

N.J.A.C. 7:26-2A.4 contains general prohibitions and requirements applicable to sanitary landfills. N.J.A.C. 7:26-2A.4(b) prohibits construction of a new sanitary landfill, or operation of an existing sanitary landfill, where solid waste is or would be in contact with surface or ground waters; however, the prohibition does not apply to solid waste that is clean fill. The Department proposes to delete the exception for clean fill. In light of the proposed amendments to the definition of solid waste, the exception is unnecessary.

Existing N.J.A.C. 7:26-2A.8(b)8 allows for an exemption to the requirement for daily cover of solid waste at an operating sanitary landfill under certain circumstances, including if the solid waste is a clean fill (see N.J.A.C. 7:26-2A.8(b)8iii). The Department believes there is no need to limit the daily cover exemption to only clean fill, since other conditions in N.J.A.C. 7:26-2A.8(b)8 are sufficient to exempt the solid wastes from the daily cover requirements. Therefore, the Department is proposing to delete N.J.A.C. 7:26-2A.8(b)8iii. The remaining conditions in the proposed rule ensure that any solid waste that may be exempt from daily cover requirements is an inert material and will not create an environmental or public health nuisance or safety hazard.

**Hydrogen Sulfide**

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Hydrogen sulfide, or $H_2S$, is a colorless gas with the characteristic odor of rotten eggs. In sanitary landfills, sulfur compounds dissolve and are converted to hydrogen sulfide through anaerobic digestion. Anaerobic digestion occurs when microorganisms break down biodegradable material in the absence of gaseous oxygen. High moisture levels in a sanitary landfill promote the formation of hydrogen sulfide. High organic content also promotes the formation of hydrogen sulfide since the organic matter acts as a food source for the anaerobic microbes. It is understandable, then, that hydrogen sulfide and its rotten egg odor would be of concern at a sanitary landfill.

The Law at N.J.S.A. 13:1E-125.4 establishes a limit on the ambient concentration of hydrogen sulfide gas emanating from a legacy landfill or closed sanitary landfill. If the Department verifies a hydrogen sulfide odor complaint and traces the odor to a legacy landfill or closed sanitary landfill facility, the Law authorizes the Department to require the owner or operator of the landfill to develop a hydrogen sulfide monitoring plan, install monitoring devices in accordance with this plan, properly operate and maintain these devices, and provide periodic reports to the Department. The Law also provides for enforcement of the standard through an action or proceeding in Superior Court. The Law is not the only authority for the Department's regulation of hydrogen sulfide. Hydrogen sulfide is an air pollutant, which the Air Pollution Control Act at N.J.S.A. 26:2C-8 and 9 authorizes the Department to regulate. Also, the Solid Waste Management Act at N.J.S.A. 13:1E-6(a) authorizes the Department to regulate landfill gas emissions and malodorous emissions.

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The Department proposes to amend its Solid Waste rules at N.J.A.C. 7:26, its Air Pollution Control rules at N.J.A.C. 7:27, and its Air Administrative Penalties and Procedures at N.J.A.C. 7:27A to apply a 30 parts per billion by volume (ppbv) hydrogen sulfide standard, the limit set forth in the Law, to all sanitary landfills. (See proposed N.J.A.C. 7:26-2A.7(h)10 and 2A.8(h)12, 7:27-7.1 and 7.3, and 7:27A-3.10(m)7) The extension of the standard to all sanitary landfills is appropriate because, although the Law's hydrogen sulfide limit applies only to legacy landfills and closed sanitary landfill facilities, all sanitary landfills, whether or not they are still accepting waste, have the potential to generate actionable levels of hydrogen sulfide.

Although the Law specifies that the measurement of $H_2S$ concentration is to be taken at the property line, the Solid Waste Management Act and the Air Pollution Control Act contain no such limitation. Ambient hydrogen sulfide concentrations resulting from landfill emissions could be higher on properties other than the sanitary landfill (properties beyond the sanitary landfill's property line) than at the property line of the sanitary landfill, depending on the height of the emission source, local terrain, meteorological conditions, and other site-specific factors. Therefore, proposed new N.J.A.C. 7:27-7.3 applies the 30 ppbv standard to the property line of a sanitary landfill, as well as to locations beyond the property line.

The Law provides for an action to be brought before the Superior Court in the event of a violation, but the Air Pollution Control Act provides for civil administrative penalties for violations of air pollution standards. Accordingly, the proposed rules provide for civil administrative penalties for violations of the proposed $H_2S$ standard, in addition to action in the Superior Court as allowed by the Law. The proposed penalty at N.J.A.C. 7:27A-3.10(m)7 for a

violation of the new $H_2S$ standard ranges from $2,000 to $30,000, depending on how many times the facility has violated the standard. In accordance with the Grace Period Law, N.J.A.C. 13:1D-125 through 133, the Department has identified the violations as "non-minor." A violation of the standard would materially and substantially undermine the goals of the Air Pollution Control program, which makes it a non-minor violation, ineligible for a grace period (see N.J.S.A. 13:1D-129(b)). Because hydrogen sulfide has the odor of rotten eggs, emissions of $H_2S$ may also result in a violation of N.J.A.C. 7:27-5.2, the general provisions applicable to the Air Pollution Control rules, which preclude the emission of substances in quantities that result in air pollution. (See also the Solid Waste rules at existing and proposed amended N.J.A.C. 7:26-2A.8(b)30) Odor constitutes air pollution under both the Air Pollution Control Act and the rules, and is subject to penalty. The penalties for violations of N.J.A.C. 7:27-5.2 are in the table at N.J.A.C. 7:27A-3.10(m)5. The Department proposes to add footnotes to the penalty tables at both N.J.A.C. 7:27A-3.10(m)5 and 7 to indicate that a violation related to $H_2S$ may also subject a sanitary landfill to the $H_2S$ monitoring system requirements in the Solid Waste rules, discussed further below.

If the Department determines that the legacy landfill or closed sanitary landfill facility is the source of a verified $H_2S$ odor complaint, the Law at N.J.S.A. 13:1E-125.4(b) authorizes the Department to require an owner or operator to develop a $H_2S$ monitoring plan; purchase, install, and operate monitoring devices; and provide periodic reports to the Department. The Department proposes to amend the Solid Waste rules at N.J.A.C. 7:26-2A.7(h), which provides

the engineering design standards and construction requirements for sanitary landfill monitoring systems, to apply the Law's monitoring and reporting requirements to all sanitary landfills.

The proposed amended rule enumerates the factors that the Department must consider in determining whether it should require a $H_2S$ monitoring system. These include the cause of the $H_2S$ odor, any actions that have been taken to mitigate the odor, the history of odor complaints and violations at the facility, and relevant on and off-site conditions. If the Department requires a $H_2S$ monitoring system, the system must be designed in accordance with the Federal Ambient Air Quality Surveillance provisions of 40 CFR Part 58. That Federal rule contains requirements for measuring ambient air quality and for reporting ambient air quality data and related information. The proposed rule also provides minimum specifications for the equipment and siting requirements.

Sanitary landfill operational and maintenance requirements are set forth at N.J.A.C. 7:26-2A.8. The Department proposes to amend the existing prohibition on emitting air contaminants at N.J.A.C. 7:26-2A.8(b)30 to prohibit a violation of the hydrogen sulfide standard. The existing rule at N.J.A.C. 7:26-2A.8(b)30i addresses odor mitigation through the use of daily cover and suitable deodorants, as appropriate. The Department proposes to amend the regulation to include additional air emissions controls and delete the requirement for use of deodorants if daily cover is not sufficient to prevent odors. Existing N.J.A.C. 7:26-2A.8(b)30i implies that only daily cover or deodorants are used to address malodorous emissions. This is not the case. Malodorous emissions are also controlled by intermediate cover, final cover, and landfill gas collection and venting systems. The proposed rule also allows for other odor control methods as approved by

the Department, including methods as may be required by the Air Pollution Control rules at N.J.A.C. 7:27. Additionally, the Department proposes to make it clear that the use of cover material and a landfill gas collection and venting system are not necessarily adequate to control malodorous emissions. Adequate cover and proper design, installation, operation, and maintenance of the landfill gas collection and venting system are necessary components of odor control. In the event of an odor problem at the sanitary landfill, the owner or operator must be prepared to upgrade or adjust all these systems and air pollution control equipment as needed to control emissions. The Department is deleting the requirement to use deodorants if daily cover is not sufficient for odor control from the Solid Waste rules. The use of deodorants or other odor control chemicals is more appropriately regulated through the Air Pollution Control rules at N.J.A.C. 7:27.

The proposed amended rule requires the owner or operator of a sanitary landfill to notify the Department Hotline at 1-877-WARNDEP within one hour after becoming aware of a potential exceedance of the hydrogen sulfide or other air pollution limits, and to take all reasonable measures to control the emissions. This will ensure the Department is aware of such emissions in a timely manner and can take action, if necessary.

If the Department verifies a hydrogen sulfide odor complaint, and the odor is traced to a legacy landfill or closed sanitary landfill facility, the Law authorizes the Department to require the owner or operator of the landfill to develop a hydrogen sulfide monitoring plan, install monitoring devices in accordance with this plan, properly operate and maintain these devices, and provide periodic reports to the Department. The requirements for hydrogen sulfide

monitoring to the monitoring provisions for all sanitary landfills are proposed at N.J.A.C. 7:26-2A.8(h)12.

**Other Amendments**

The Department proposes to amend the definition of "Class III sanitary landfill" at N.J.A.C. 7:26-1.4, to make it clear that a Class III sanitary landfill may accept type ID 13C waste, which is construction and demolition debris. The Class III sanitary landfill definition was incorporated into the Solid Waste rules in June 1987, to identify sanitary landfills that accept only inert, non-putrescible, non-hazardous solid waste, ID 13 or 23. At that time there was no waste type identified as ID 13C. Construction and demolition waste was a component of ID 13, bulky waste. In its discussion of the proposed rules at N.J.A.C. 7:26-2A.6, the Basis and Background document for the May 1986 rule proposal (18 N.J.R. 883(a)) acknowledges that Class III sanitary landfills were expected to be used for disposal of construction and demolition waste. In 1996, the Department adopted a definition of ID 13C, construction and demolition waste, to address a United States District Court order granting a preliminary injunction to restrain enforcement of the flow control rules of construction and demolition (C&D) waste (proposed 28 N.J.R. 1305(a); 28 N.J.R. 2380(a)). *Atlantic Coast Demolition and Recycling, Inc. v. Board of Chosen Freeholders of Atlantic County, et al.*, Civil Action No. 93-2669 (JEI), Civil Action No. 94-3244, Consolidated Cases (U.S. District Ct., D.N.J., November 28, 1995). At that time, the Department failed to amend the definition of Class III sanitary landfill to address the newly identified waste type. However, the Department continued to view construction and

demolition waste as acceptable at a Class III sanitary landfill. The Department is now clarifying its rule.

The Department is amending N.J.A.C. 7:26-2.8(m) and (n)2 to correct cross references. Existing N.J.A.C. 7:26-2.8(m) prohibits the construction of a sanitary landfill until the Department approves a final Quality Assurance/Quality Control Plan (QA/QC Plan) submitted in accordance with N.J.A.C. 7:26-2A.8. However, there are no requirements for submittal of a QA/QC Plan in N.J.A.C. 7:26-2A.8. QA/QC Plan submittal requirements, along with other engineering design submittal requirements for sanitary landfills, are found in N.J.A.C. 7:26-2A.5.

Existing N.J.A.C. 7:26-2.8(n)2 prohibits commencement of operation of a sanitary landfill until the Department receives and approves a certification of construction by a New Jersey licensed professional engineer in accordance with N.J.A.C. 7:26-2A.9(a). However, there are no sanitary landfill construction certification requirements in N.J.A.C. 7:26-2A.9(a). Sanitary landfill professional engineer construction certification requirements are found in N.J.A.C. 7:26-2A.7(a). Therefore, the Department is amending the rule to correct the referenced citation to N.J.A.C. 7:26-2A.7(a).

N.J.A.C. 7:26-2A.1(a) states that the subchapter constitutes the rules of the Department governing the design, construction, operation, maintenance, closure, and post-closure care of sanitary landfills. However, N.J.A.C. 7:26-2A.1(c)1 and 2 appear to limit the applicability of the subchapter to new or existing operating sanitary landfills and open dumps only. This is not the case. N.J.A.C. 7:2A.8(j) applies to landfill disruptions, whether at *active, terminated, or closed*

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sanitary landfill facilities. N.J.A.C. 7:26-2A.8(k) governs fires at *terminated, closed, or unpermitted* landfills, and N.J.A.C. 7:26-2A.9(a) states that the section governs the closure and post-closure care of *all* sanitary landfills. Proposed new N.J.A.C. 7:26-2A.1(c)3, therefore, makes it clear that the subchapter also applies to sanitary landfills that have terminated operations and to all sanitary landfills for the purpose of regulating disruption and closure and post-closure care.

The Department proposes to reword N.J.A.C. 7:26-2A.3(a) for clarity and to list the additional regulatory provisions applicable to all sanitary landfills, which include general prohibitions, engineering design submissions, performance, design and construction standards, operation, maintenance, inspection and monitoring requirements, disruption and closure and post-closure care requirements, and financial assurance for continuing obligations.

At N.J.A.C. 7:26-2A.8(j)1, the Department proposes to amend the name of the Department's technical manual governing sanitary landfills.

Proposed amendments to N.J.A.C. 7:26-2A.9(g) delete and correct references. In N.J.A.C. 7:26-2A.9(g)13ii, the Department is deleting the reference to N.J.A.C. 7:26-2A.9(e)4. Existing N.J.A.C. 7:26-2A.9(e)4, proposed to be amended and recodified as paragraph (e)5, requires the Closure and Post-Closure Care Plan to include a schedule for implementing the requirements of the section. The Department proposes to delete the reference, rather than update it, because a reference to a schedule is not necessary in the context of an "as built" certification. At N.J.A.C. 7:26-2A.9(g)15, the Department is correcting the reference to updated financial

plans. The reference should be to N.J.A.C. 7:26-2A.9(f)6, where such plans are discussed, not paragraph (f)5.

**Social Impact**

The Department anticipates that the proposed rules will have a positive social impact. Historically, New Jersey has disposed of solid waste in landfills, many of which were poorly sited and inadequately designed and controlled. Many of these substandard facilities stopped receiving waste, but proper closure and remediation were left unresolved. The legacy of past landfills that were not designed with stringent controls for protection of the environment and that were, for the most part, not properly closed remains a significant challenge facing the State. There are more than 800 known or suspected landfills in New Jersey, but this number changes as new discoveries of previously unidentified waste burial locations are uncovered by environmental site assessments and redevelopment activities.

New Jersey's design and environmental performance requirements for sanitary landfills are among the most stringent in the nation, and the Department has experienced success in bringing once abandoned landfills back into productive use. Despite this success, there have also been failures that have resulted in negative impacts on the communities surrounding them. The proposed rules provide the Department, local governments, and the public with new tools to ensure that all sanitary landfills are properly closed, and that those sanitary landfills that accept new material as part of closure or redevelopment are not operated in ways that are dangerous to the health of their neighbors or that cause additional harm to the environment.

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## Economic Impact

The proposed new rulea and amendments will have a number of positive economic impacts, although they impose added costs on landfill owners or operators and possibly on certain recycling facilities. This analysis discusses the costs to landfill owners or operators, impacts on certain recycling facilities, and impacts on the Department. The analysis then discusses the economic impact of the proposed amendments unrelated to the Law. Because of unavoidable data limitations and other factors discussed below, the impacts of the proposed rules are difficult to estimate with precision on a Statewide level.

Costs to Sanitary Landfill Owners and Operators

The cost of the proposed rules falls primarily on the owners and operators of legacy landfills and closed sanitary landfill facilities. To the extent that the Department is extending certain of the Law's requirements to all sanitary landfills and establishing new reporting requirements, the proposed rules will have an economic impact on owners and operators of all sanitary landfills.

The proposed rules add new requirements or clarify existing requirements regarding financial assurance for closure costs, escrow funding for post-closure costs, general liability insurance, including environmental or pollution liability insurance, municipal site plan approval, and management of hydrogen sulfide. They also expand the requirements applicable to professional engineers and for post-closure evaluation reports. With the possible exception of requirements relating to management of hydrogen sulfide emissions from landfills, discussed

below, the proposed rules do not affect the cost of the various physical activities required for closure, for example, the placement of soil or vegetative cover, purchase and installation of methane vents and air pollution control devices, purchase and installation of groundwater monitoring wells and leachate control systems, and storm water controls. The proposed rules do not increase existing fees, nor do they impose new fees for the Department's services.

***Financial Assurance for Closure Costs***

As required by the Law, the proposed rules require that owners or operators of landfills subject to the Law establish and maintain financial assurance in an amount necessary to pay for all closure costs. Such financial assurance may only take the form of a surety bond, a letter of credit, or a line of credit. Each of these mechanisms involves its own requirements and costs, and therefore each has its own economic impacts.

*Surety Bond*

The owner or operator who obtains a surety bond is called a "Principal." The company that issues the surety bond is the "Surety." Through a surety bond, the Surety guarantees to an Obligee (in this case, the Department) that it will meet the Principal's obligations up to the bond limits, if the Principal is unable to do so. Under the proposed rules, the Surety agrees to pay a sum into a standby trust for the Department's use for closure of the legacy landfill or closed sanitary landfill facility if the Principal fails to meet its closure obligations. Standby trusts are discussed further below. The cost to the Principal to obtain the bond, and even whether the

Surety will issue the bond, depends on the would-be Principal's creditworthiness. If the Surety determines that the would-be Principal is a poor risk, it will charge a high fee or decline to issue the bond. The value of a surety bond to the Department depends on the size and credit strength of the Surety. The bond has little value to the Department if the Surety will not be in a position to pay if called upon; consequently, the proposed rules require that a Surety have at least the prescribed Financial Strength Rating from the major ratings companies, and a minimum of $750 million statutory surplus, which is the amount of "extra money" after all liabilities and assets have been properly calculated. The Department of Banking and Insurance maintains a list of surety companies, available at www.nj.gov/dobi/division_insurance/surety.htm.

Surety bond prices are normally expressed as a percentage of the face amount of the bond, which is the maximum amount for which the Surety may be liable (technically referred to as the penalty amount). According to the financial industry experts the Department consulted during this rulemaking, surety bonds currently are priced at one percent or less for a Principal with very strong credit, two to three percent for strong credit, and perhaps four to five percent for weaker credit (assuming the would-be Principal is financially strong enough to obtain a bond). A fee of three percent would amount to $30,000 per year per $1 million face value; for a $10 million closure project this would come to $300,000 annually during the closure period. All of these prices change from time to time in line with general financial conditions and other factors.

Surety bonds usually have a term of one year and are renewable at the discretion of the Surety. However, the proposed rule requires what is known as an "evergreen" surety bond. An evergreen surety bond remains in full force and effect unless the owner or operator performs

closure as required, or alternate financial assurance is obtained and approved by the Department. In the proposed rule, the Surety may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Department, provided, however, that the bond may not be canceled during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Department. The Department proposes that during this period the owner or operator will obtain alternate financial assurance. If the owner or operator fails to do so, payment on the bond is triggered, and the Surety must place the funds guaranteed for closure in the standby trust. Because an evergreen surety bond lengthens the Surety's period of exposure, there may be a limited number of potential sureties, and the cost of obtaining such a bond may be higher. How much higher depends on conditions in the financial markets at the time.

*Letters of Credit*

A letter of credit is a document issued by a financial institution, such as a bank, pursuant to which the financial institution guarantees the payment of the financial obligations of (in this case) the sanitary landfill owner or operator up to a specified amount for a specified period of time. Essentially, a letter of credit substitutes the issuer's credit for that of the landfill owner or operator, thereby reducing or eliminating the risk to the Department of non-payment of closure costs. The proposed rule provides that in case the owner or operator fails to perform, the Department may draw on the letter of credit by directing the issuer of the letter of credit to deposit cash into a standby trust fund. The cost to a landfill owner or operator of obtaining a

letter of credit is a function of the owner or operator's creditworthiness. The issuer may require collateral from the owner or operator, or may require the owner or operator to maintain an amount on deposit with the issuer, if the owner or operator's credit is not sufficiently strong. The value of the letter of credit to the Department depends on the size and credit strength of the letter of credit issuer. As with the proposed rules for surety bonds, discussed above, the proposed rules require the issuer to have at least the prescribed Financial Strength Rating from the major ratings companies and a minimum of $750 million statutory surplus.

Letter of credit fees are normally expressed as a percentage of the amount of the letter of credit. According to the financial industry experts the Department consulted as part of this rulemaking, letter of credit fees currently are one percent or less for borrowers with very strong credit and from five to 10 percent for those with considerably weaker credit. For those with credit between very strong and weak, the fee is between one and five percent. A five percent letter of credit fee would amount to $50,000 per year per $1 million; for a $10 million closure project this would come to $500,000 annually during the closure period. Letter of credit fees vary widely among institutions and change from time to time based on general financial conditions and other factors.

Letters of credit usually have a term of one year and are renewable at the discretion of the issuing institution. However, the proposed rules require the letters of credit to have "evergreen" provisions that require an automatic one year extension unless the issuer provides a notice at least 120 days prior to the expiration date that it does not intend to extend the letter of credit. As discussed above, during the 120-day period, the Department expects the owner or operator will

obtain alternate financial assurance. If no alternate financial assurance is obtained, the payment provisions are triggered and the funds subject to the letter of credit are placed into the standby trust. These terms may require higher fees and may reduce the number of financial institutions willing to issue a letter of credit.

*Line of credit*

A line of credit is effectively a source of funds that can be drawn upon at the borrower's discretion. Interest is paid only on money actually withdrawn. However, the borrower may be required to pay a fee on the unused portion of the line. A lender extending the line may require security in the form of collateral or the line may be unsecured. An unsecured line may require a higher fee or higher interest rate. The rates and legal terms for lines of credit vary from time to time depending on financial market conditions and among lenders, just like the availability, interest rates, and legal terms for mortgage loans, car loans, etc. The rates available for future landfill closure projects cannot be predicted and it is not practical for the Department to survey all of the individual institutions that might provide a line of credit at any given time on a given project.

*Standby trust*

Although not required by the Law, when surety bonds and letters of credit are used to provide financial assurance discussed above, the proposed rules require the landfill owner or operator to create a standby trust to hold the proceeds of the financial assurance instrument until

they are disbursed to cover actual incurred closure costs. A standby trust is a trust that does not yet exist, but will come into existence if and when a particular event occurs. As soon as the trust comes into existence, the trustee named in the trust document is responsible for administering the trust on behalf of the trust beneficiaries. Under the proposed rules, the Department is the beneficiary of the trust. If the owner or operator fails to perform closure of the sanitary landfill as required in accordance with N.J.A.C. 7:26-2A.9 and the approved Closure and Post-Closure Plan, including failing to obtain replacement financial assurance, funds from the surety bond or letter of credit would be deposited into the trust to be used as the Department directs. Creating the standby trust in advance facilitates the Department's ability to draw on the financial assurance should it become necessary. If such a trust were not required, the proceeds of surety bonds and letters of credit would likely be deposited in the State's general fund, which does not have an efficient means of making regular disbursements to a specific project. The costs involved in creating such trusts are the legal fee for drafting the trust documents and the trustee's fee (usually an annual amount). These costs will vary among law firms and trustees (usually a commercial bank's trust department). There are too many variables for the Department to estimate accurately the cost of setting up and administering a trust.

***Escrow Accounts for Post-Closure Costs***

An escrow is a contractual arrangement in which a third party (the escrow agent) receives, holds, and disburses money for the primary parties (here the Department and the landfill owner or operator) in accordance with the conditions and procedures agreed to by the

parties. The proposed rules require that owners or operators of landfills subject to the Law establish an interest-bearing escrow account for post-closure operational and monitoring costs, and deposit an amount equal to at least one dollar per ton for every ton of recyclable material, contaminated soil, wastewater treatment residual material, or construction debris accepted at the landfill. The existing landfill closure rules at N.J.A.C. 7:26-2A.9 require an escrow account for landfills that ceased operating on or after January 1, 1982, to cover both closure and post-closure care costs. The proposed rules require a new type of escrow account, the legacy landfill escrow account, in satisfaction of the additional requirements of the Law. Therefore, as discussed in the Summary above, there are two escrow accounts required under the rules.

Under financial accounting principles, a deposit to such an escrow does not constitute a "cost" or "expense" per se, but is merely a transfer of cash from one account (for example a landfill owner's unrestricted cash account) to another (a restricted escrow account held by an escrow agent). The escrow agreement is irrevocable, and the funds deposited to the account may be used only for the purposes identified in the escrow agreement, such as the landfill owner's post-closure care expenses. By making escrow deposits, the landfill owner or operator is in effect setting aside funds to help cover the owner's future costs. Funds in the escrow account are not withdrawn until the escrow agent makes payments on the owner's or operator's behalf to parties providing post-closure care for the landfill. At the completion of a landfill's post-closure care period, any funds remaining in a legacy landfill law escrow account will be returned to the owner or operator of the landfill. Consequently, the requirement for escrow funding under the Law and the proposed rules has no economic impact, apart from the escrow agent's fee, which

varies depending on the financial institution acting as agent. Each financial institution determines its own fee.

How much will be available for deposit to the escrow account will depend on a number of site-specific factors, including the amount and types of material approved for acceptance at the landfill, the effect of competition (if any) among disposal sites for each type of material, and the cost of operating the landfill in the period during which such material is being accepted, including reasonable compensation to the owner or operator for his or her services in managing the landfill. It is impossible for the Department to predict whether future escrow deposits will suffice to cover future post-closure care costs at any given landfill because of the highly site-specific nature of the calculation. Under the proposed rules, the Department cannot approve the Closure and Post-Closure Financial Plan unless the plan demonstrates that post-closure care costs will be covered by tipping fee escrow deposits, some other specific dedicated alternative funds, or a combination of these funding mechanisms. Where a preliminary plan suggests that escrow deposits and other funding mechanisms will be inadequate to cover projected post-closure care costs, the applicant may need to enlist the support of a venture partner or equity participant to develop an approvable financial plan.

***Liability Insurance***

The Law requires the owner or operator of a legacy landfill or closed sanitary landfill facility that accepts recyclable material, contaminated soil, wastewater treatment residual material, or construction debris to maintain a general liability insurance policy in an amount

determined in advance by the Department to pay for damages or claims resulting from operations at or closure of the landfill.

As used in the insurance industry, the term "general liability" insurance is understood to cover bodily injury, personal injury, and property damage. The Law requires an owner or operator to "maintain a general liability insurance policy" to "pay for damages or claims resulting from operations or closure of the legacy landfill or closed sanitary landfill facility." As explained in the Summary above, the Department interprets the Law as requiring both general liability coverage and also pollution liability coverage. The Department believes that most owners and operators will already have general liability insurance to cover bodily injury, personal injury, and property damage. General liability insurance does not typically include "environmental" or "pollution" liability insurance; accordingly, an owner or operator will need to purchase an additional policy or pay an additional premium to add the coverage to its existing policy.

Premiums for general liability insurance vary from state-to-state and among insurers, and also depend on, among other factors, the revenues, credit quality, and loss record of the insured; whether the policy limits are on a claims made or per occurrence basis; the face amount of the policy; the duration of the policy (shorter terms usually mean lower premiums); various technical factors, such as whether subrogation rights are waived; and whether environmental and pollution damage are covered.

Based on its discussions with a number of major insurance brokers, the Department estimates that the annual premium for general liability insurance, without pollution coverage, is

less than 0.1 percent of the policy limits for companies with total revenues greater than $100 million; greater than one percent for companies with total revenues less than $1 million; and between 0.1 percent and one percent for companies with total revenues between $1 million and $100 million. The proposed rules do not define a required coverage amount for general liability insurance. However, based on the above estimates, the Department estimates that a small entity could pay an annual premium of greater than approximately $10,000 on a $1 million policy. Premiums for pollution liability coverage from an insurance carrier that meets the rating strength and reserves set forth in the proposed rules vary, but generally range from approximately $2,500 to $10,000 per year for $1 million of coverage and from approximately $5,000 to $20,000 per year for $5 million of coverage. The proposed rules require minimum limits of $4 million per occurrence and $8 million annual aggregate for pollution liability. Therefore, the Department estimates that the required pollution liability coverage will cost approximately $5,000 to $20,000 annually.

***Municipal Site Plan Approval***

The Law and proposed N.J.A.C. 7:26-2A.9(e)2 require parties that are subject to the Law and the proposed rules to apply for and obtain municipal site plan approval for their proposed project and closure. Most municipalities charge a review fee for applications for site plan approval. Site plan review fees vary among the State's municipalities, depending on the nature and magnitude of the project, the project's local impacts, and other factors. An applicant for site plan approval must also usually retain a consultant to assist it in preparing the application for

municipal approval. The consultant's costs vary depending on the consulting firm and the nature and magnitude of the project. It is impossible for the Department to predict these costs because there is no "typical" project.

***Hydrogen Sulfide Management***

The Law prohibits a legacy landfill or closed sanitary landfill facility to emit hydrogen sulfide at a level in excess of 30 ppb averaged over any 30-minute period as measured at the property line. The Department is proposing to apply this standard to all sanitary landfills, as discussed in the Summary above, and measure at or beyond the property line of the sanitary landfill. The proposed new regulations regulating hydrogen sulfide emissions are not anticipated to have an economic impact, except insofar as they require a sanitary landfill to develop and operate in accordance with a hydrogen sulfide management plan, as discussed below.

The Air Pollution Control Act and existing Air Pollution Control rules at N.J.A.C. 7:27 enable the Department to investigate odors associated with landfills, and issue administrative orders and assess civil administrative penalties if it finds a violation. Similarly, under the existing Solid Waste rules at N.J.A.C. 7:26-2A.7(f)4 and 2A.8(b)30, the Department may order a landfill owner or operator to abate malodorous emissions through the use of suitable cover material or by the installation of a landfill gas collection and venting system. Therefore, the owners and operators of landfills must, under the existing rules, already control hydrogen sulfide to prevent off-site odors. Owners and operators of landfills already must ensure that their operations do not result in off-site concentrations of hydrogen sulfide sufficient to cause odors.

In the Department's experience, odors from hydrogen sulfide occur at levels well below 30 ppbv; accordingly, the existing rules require owners and operators to control hydrogen sulfide to a level that is more stringent than the proposed rules require.

Under proposed N.J.A.C. 7:26-2A.7(h)10, the Department may require the owner or operator of a sanitary landfill to implement a system to monitor levels of hydrogen sulfide from the landfill, if the Department verifies that the landfill is the source of odor for which the Department has received a complaint, or if the landfill exceeds the proposed new hydrogen sulfide emission limit. The Law requires this of legacy landfills and closed sanitary landfill facilities, and the proposed rules require it of all sanitary landfills, for the reasons discussed in the Summary above. The Department believes that the costs of designing, purchasing, installing, operating, and maintaining hydrogen sulfide monitoring equipment could be significant in some cases. The Department estimates that the cost of the monitoring equipment could be between approximately $60,000 for a small project with two monitoring locations and basic equipment, and $400,000 for a large project with three monitoring locations and the best available monitoring equipment. Annual monitoring costs could range from approximately $15,000 for a small project with basic equipment, to approximately $100,000 for a large project with the best available equipment. Additionally, each project is subject to a fee of $2,925.00 in accordance with N.J.A.C. 7:27-8.6(l)8ii, Table B, paragraph 8, for the Department's review of an Ambient Air Monitoring Protocol document.

***Professional Engineers (PEs)***

The Law and proposed amendments to N.J.A.C. 7:26-2A.8(j) and 2A.9 require a landfill owner or operator to retain a professional engineer licensed in New Jersey to perform various activities. For owners and operators of legacy landfills and closed sanitary landfill facilities who propose to accept recyclable material, contaminated soil, wastewater treatment residuals, or construction debris at the facilities, the proposed rules require professional engineers to certify financial assurance for closure, the estimates of closure costs, and the details of any cost decrease where the owner or operator is requesting a decrease in the amount of required closure financial assurance. For all sanitary landfills, the proposed rules require professional engineers to perform the closure and oversee any other activities performed at the landfill, including activities conducted during sanitary landfill disruptions, and certify on a quarterly basis that all materials accepted at the site are in conformance with a material acceptance protocol approved by the Department and that all provisions and prohibitions of the administrative consent order, closure or post-closure plans, permits, or approvals are complied with at the landfill.

Some of these activities are required under existing rules and standard industry practice. The time requirements and costs for these activities will vary by landfill, by engineering firm, by the extent of activities being conducted, and by the length of the closure and post-closure care periods, among other factors. Given the many variables, the Department is unable to estimate the economic impact of the proposed rules requiring a professional engineer.

***Post-Closure Evaluation Report***

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The proposed rules require an owner or operator of a sanitary landfill to submit to the Department a post-closure evaluation report every 10 years during the post-closure care period, and between two and three years before the sanitary landfill reaches the end of the facility's initial 30-year post-closure care period, or the scheduled end of any post-closure period extension. The purpose of the proposed post-closure evaluation report is to provide the Department a comprehensive assessment of the sanitary landfill's condition, whether the owner or operator is in compliance with the Closure and Post-Closure Plan, and whether changes to the plan are necessary. The report will also allow the Department to evaluate whether an extension of the post-closure care period is necessary to protect human health and/or the environment. The plan contains an analysis of monitoring data that has been collected at the sanitary landfill throughout the post-closure care period. For some sanitary landfills, the amount of data is large, and for others the amount of data is smaller. Accordingly, the cost to prepare the report will be site specific. The cost will also depend on the environmental or engineering firm retained to assist in preparing the report and the professional engineer retained to certify the report as required by the proposed rule and how much these professionals charge. Because the report and preparation of the report varies so significantly by sanitary landfill, the Department is unable to estimate a cost or range of costs.

Impacts on Class B Recycling Facilities

The existing Recycling rules at N.J.A.C. 7:26A authorize Class B recycling facilities to accept source-separated Class B recycling materials for processing to make a new end product.

Such facilities handle a variety of types of material including concrete, asphalt, brick, block, asphalt-based roofing scrap, wood waste, trees, tree parts, brush, leaves, scrap tires, and petroleum contaminated soil. As of 2014, there were 110 Class B recycling facilities operating in the State. Existing N.J.A.C. 7:26A-1.3 categorizes the non-water-soluble, non-decomposable inert products of an approved Class B recycling facility as within the definition of "clean fill." Under the proposed amended rules, a landfill's use of material depends not on the definition of clean fill, but rather on whether the material meets the most stringent soil remediation standards.

The Department is not requiring chemical analysis of the products from Class B facilities as part of the proposed rule. However, with the proposed amendments to the rules regarding products from Class B recycling facilities, some Class B facilities may decide to chemically analyze the materials that they sell and make the data available to their customers to inform decisions about the appropriateness of the materials for the customers' intended use. A number of the representatives of Class B recycling facilities that attended the Department's information gathering session in connection with the proposed rules advised that their facilities currently analyze their products. Some Class B facilities may choose to not analyze their products, even if the lack of chemical analyses results in the loss of sales. The Department has no information about how many Class B recycling facilities already regularly analyze their products, and therefore, cannot anticipate how many will choose to do so in light of the proposed rules. The Department cannot determine if the proposed rules will have an economic impact on Class B facilities.

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Costs to the Department

The Department estimates that it will receive between one and five applications for closure and/or redevelopment projects at legacy landfills each year. Under existing rules, such projects require Department approval. However, the Law and proposed rules place additional requirements on these projects, and each additional requirement requires Department resources to administer. In particular, the Closure and Post-Closure Financial Plan requires review of cost estimates and financial assurance documents, and the establishment and management of post-closure escrow accounts. The Department estimates that its engineering and financial staff will spend approximately 50 additional hours reviewing the initial Closure and Post-Closure Plan for each legacy landfill closure or redevelopment project. Each hour will cost the Department $136.28, which is based upon the average salary of Department staff who may work on such projects, plus fringe benefits at the rate established by the Department of the Treasury, and overhead. Therefore, the average additional cost for Closure and Post-Closure Plan review is $6,814 per project. The Department estimates that its staff will spend an additional 60 hours per year for project oversight after a Closure and Post-Closure Plan Approval is issued. This time is associated primarily with the review of two-year updates to financial plans, review of quarterly project reports, and oversight of post-closure escrow account deposits and withdrawal requests. This oversight cost, based upon the hourly rate above, is approximately $8,176.80 per project per year. Using these figures, the Department's cost for a closure project that includes review and approval of a Closure and Post-Closure Plan, five years of closure construction, and a 30-year post-closure care period would be approximately $290,000 per project.

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Proposed Amendments Unrelated to the Law

The proposed amendments unrelated to the Law are not anticipated to have an economic impact. These amendments correct cross references and clarify existing language.

**Environmental Impact**

The Department anticipates that the proposed new rule and amendments will have a positive environmental impact; however, it cannot predict with certainty the magnitude of the benefit. New Jersey's existing sanitary landfill rules are designed to ensure that sanitary landfills pose little or no hazard to human health or the environment. However, New Jersey has a history of past landfills that were not properly sited, designed, constructed, operated, and/or closed. These "legacy landfills" have the potential to cause harm to the environment, including when the landfills are allowed to accept additional materials as part of a redevelopment and/or closure project. In addition, there are landfills in New Jersey that were closed when the closure standards were not as stringent as they are now. Potential problems arising from these landfills vary and depend greatly on the nature of the landfill controls in place, the site characteristics, and the materials disposed there, but may include ground or surface water contamination, odors, and production of methane gas. The proposed new rules and amendments are expected to have a positive environmental impact, insofar as they ensure that all sanitary landfills and closed sanitary landfill facilities that accept new material for proper closure and future reuse will take necessary actions to protect the environment.

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As noted in the Economic Impact above, the Department estimates that it will receive between one and five closure and/or redevelopment projects at legacy landfills each year. It recognizes, however, that the proposed amendments are expected to add costs to any landfill project, and those added costs could deter an owner, operator, or developer from undertaking a landfill closure and redevelopment project that would have resulted in a benefit to the environment. Whether a landfill closure and redevelopment project will move forward is dependent on a variety of factors, including without limitation, the location of the landfill, the existing environmental conditions at the site, the demand for the intended use of the redeveloped site, the cost to comply with environmental requirements, and the like. Given the number of factors that influence an owner or operator's decision to undertake a landfill closure and redevelopment project, the Department cannot predict with any certainty the environmental impacts associated with the proposed amendments.

**Federal Standards Statement**

Executive Order No. 27 (1994) and N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), require State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis.

To the extent that the proposed new rules and amendments govern the closure of legacy landfills and on closed sanitary landfill facilities that accept certain materials for placement after closure, they implement the Law and are not promulgated under the authority of, or in order to implement, comply with, or participate in, any program established under Federal law, or under a

State statute that incorporates or refers to a Federal law, Federal standards, or Federal requirements. Accordingly, no further analysis is required.

Sanitary landfills that conduct closure activities may be subject to Federal requirements for Municipal Solid Waste landfills and other disposal facilities at 40 CFR Parts 257 and 258. The proposed amendments governing the closure of legacy landfills are consistent with the Department's existing closure and post-closure care requirements for other landfills, which are, in turn, consistent with these Federal regulations. There are no comparable Federal standards governing the acceptance of certain materials for placement after closure by legacy landfills or closed sanitary landfill facilities or the emission of hydrogen sulfide gas at sanitary landfills.

The proposed new rules and amendments also govern emissions of hydrogen sulfide from sanitary landfills. While there are Federal regulations governing air quality, particularly 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills and 40 Part 63, Subpart AAAA, National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, these regulations address only the emissions of non-methane hydrocarbons. Neither contains a hydrogen sulfide standard. Therefore, there are no Federal regulations to which the Department can make a meaningful comparison of the Department's amendments regarding hydrogen sulfide emissions or the acceptance of additional materials for placement by owners or operators at sanitary landfills. No further analysis with respect to these provisions is required.

**Jobs Impact**

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According to the 2010 U.S. Census, New Jersey averaged the highest population per square mile of land area of any U.S. state at 1,195.5. The most recent estimate available from the U.S. Census bureau predicts a 1.22 percent increase in population in the State from April 1, 2010 to July 2013. With such a dense and increasing population, many of the State's landfills are or will soon be surrounded by residential or industrial areas, and pressure to redevelop closed landfill sites will increase. Past landfill closure and redevelopment projects have created jobs in many sectors of the job market, for example, professional engineers, environmental consultants, cleanup contractors, general contractors, and land surveyors. However, redevelopment of old landfills presents challenging engineering, construction, design, and other technical issues, all of which add to the cost of the project. Though there have been many successful landfill redevelopment projects in New Jersey, such additional costs have affected the rate of redevelopment of these landfills for other uses.

As noted in the Economic Impact above, the proposed new rules and amendments, which regulate the closure of landfills, landfill emissions, and the acceptance and placement of new materials by these facilities after closure, are expected to add costs to all such landfill projects. As a consequence, it is reasonable to expect that certain landfill redevelopment projects may not be undertaken where the additional costs imposed by the Law make the projects unprofitable. Therefore, the Department anticipates a negative impact on jobs that would have been created from the closure of legacy landfills and the development of closed sanitary landfill facilities as a result of the added costs imposed by the proposed amendments. However, as undeveloped land on which to build becomes scarce, or incentives and pressure to develop in smart growth areas

increase, sanitary landfill sites will become more attractive for redevelopment projects despite the additional costs. Recent incentives to redevelop brownfields, including properly closed landfills, into, for example, solar energy facilities may offset the effects of increased costs of redevelopment. Additionally, the increased environmental and health protections afforded by these proposed amendments may encourage the construction of housing or other projects near closed landfills, thereby helping to offset any negative impact on jobs creation or retention.

The proposed amendments unrelated to the Law are not anticipated to have an impact on job creation or retention. These amendments correct cross references and clarify existing language.

**Agriculture Industry Impact**

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated the nature and extent of the impact of the proposed new rules and amendments on the agriculture industry and determined that they will not have a direct impact on the agricultural industry. The proposed amendments regulate the closure of landfills, landfill emissions, and the acceptance and placement of new materials at these facilities after closure. To the extent that these amendments provide additional environmental and health protections to owners of property adjacent to landfills, including agricultural properties, there will be a positive impact on the agricultural industry.

It is possible that there are legacy landfills on properties that have historically been used for agricultural purposes. The proposed rules would not impact these landfills unless closure or material acceptance activities were conducted at the site. This could potentially occur if the

agricultural property is being redeveloped. However, landfills on agricultural property are almost always small and, rather than close such landfills, it would be expected that all deposited waste material would be removed from site prior to redevelopment.

The proposed amendments unrelated to the Law are not anticipated to have an impact on the agricultural industry. These amendments correct cross references and clarify existing language.

**Regulatory Flexibility Analysis**

As required by the New Jersey Regulatory Flexibility Act, N.J.S.A. 52:14B-16 et seq., the Department has evaluated the reporting, recordkeeping, and other compliance requirements the proposed new rules and amendments would impose upon small businesses. The Regulatory Flexibility Act defines the term "small business" as "any business which is a resident in this State, independently owned and operated and not dominant in its field, and which employs fewer than 100 full-time employees."

The proposed rules affect owners and operators of legacy landfills, operating sanitary landfills, and closed sanitary landfill facilities. Department records indicate that approximately 40 percent of the landfills subject to the proposed amendments are publicly owned, many of these municipally owned. The remaining 60 percent are likely to include small businesses as defined by the Regulatory Flexibility Act. The Department cannot with any certainty break this number down further. Owners of legacy landfills were not required to notify the Department when they transferred ownership of a landfill. There are also landfills in operation after 1982,

for which the Department does not have ownership information. Therefore, the Department does not know how many owners or operators of sanitary landfills qualify as small businesses.

In general, a small businesses subject to the proposed amendments will need to comply with the following reporting, recordkeeping, and other compliance requirements, which include notifying the Department Hotline of any violation of the hydrogen sulfide standard or an emission of an air contaminant in violation of the Department's air pollution control rules; submitting, as required, hydrogen sulfide monitoring reports, quarterly reports of closure activities, and reports on monthly acceptance of certain materials at the landfill; keeping records of emissions data and materials acceptance; obtaining municipal site plan approval for acceptance of materials; establishing financial assurance for closure, liability insurance, and an escrow account for landfill post-closure care when certain materials are accepted; developing, as required, hydrogen sulfide monitoring plans; controlling malodorous emissions; and meeting closure and post-closure landfill standards. A small business conducting regulated activities at its sanitary landfill will need to hire a New Jersey licensed professional engineer to oversee these regulated activities. Depending on the activities conducted at these sites, the hiring of other professional services may be necessary, for example, environmental consultants or financial experts. For a more detailed discussion of the recordkeeping, reporting, and compliance requirements, as well as the associated costs, see the Summary and Economic Impact above.

A number of the proposed amendments, for example, those governing hydrogen sulfide monitoring systems, are performance rather than design standards. As such, they provide small businesses with flexibility in meeting the standards. Other compliance requirements, for

example, those governing financial assurance, are proscriptive; they do not provide for lesser requirements for small businesses. Hazards to human health and the environment attendant on the operation and closure of all landfills are the same whether small or large businesses are undertaking them. In proposing these amendments, therefore, the Department has evaluated the need to protect the public and environment from hazards associated with improperly operated and closed landfills and determined that to reduce the standards for small businesses would endanger the environment and public health and safety. Moreover, the Law and other statutes from which the proposed amendments derive, provide no authority for the Department to reduce standards based on business size. Therefore, no reduction in compliance standards is provided for small businesses.

**Housing Affordability Impact Analysis**

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated the proposed new rules and amendments to determine their impact, if any, on the affordability of housing. The proposed rules regulate the closure of sanitary landfills, landfill emissions, and the acceptance and placement of new materials at these facilities after closure; they do not apply to housing units. While sanitary landfills impacted by the proposed amendments exist throughout New Jersey, and housing costs can be affected by landfill activities, such impacts are difficult to quantify. For example, housing surrounding closed landfills that are redeveloped may become more affordable, as activities associated with the redevelopment (increased noise, traffic, or odors) are viewed as negative and the housing prices decrease. Alternatively, when landfill closure or

redevelopment activity results in enhanced environmental and health protections to the surrounding community or, depending on the type of redevelopment, more available housing, recreation or open space, nearby housing values may rise once landfill activity is complete.

The costs associated with the proposed amendments may deter some entities from redeveloping closed landfills for housing or other purposes. Each landfill presents its own unique set of environmental, financial, and societal circumstances. It is these site specific circumstances that will determine what impact, if any, the proposed amendments will have on the cost of housing. Therefore, the Department believes it is not possible to predict with any certainty whether and to what extent the proposed rules will have on the average cost of housing in New Jersey.

**Smart Growth Development Impact Analysis**

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated the proposed new rules and amendments to determine whether they will evoke a change in housing production in Planning Areas 1 or 2, or within designated centers. The proposed rules regulate the closure of landfills, landfill emissions, and the acceptance and placement of new materials by these facilities after closure; they do not apply to housing units. Landfills subject to these amendments are found throughout the State and, as such, are likely to be located in Planning Areas 1 or 2, or within designated centers, as identified in the State Development and Redevelopment Plan (State Plan).

While these landfills and the land surrounding them represent an opportunity for growth in accordance with the State Plan, determining the impact of these proposed rules on the

achievement of Smart Growth or the availability of affordable housing is difficult. To the extent that the increased environmental and health protections afforded by these proposed rules encourage the construction of affordable housing near closed landfills or the redevelopment of old landfills to new uses, there will be a positive impact on housing production in the State. However, the costs associated with complying with the proposed rules may deter entities from redeveloping closed landfills located in these Planning Areas, including developing the landfills for affordable housing units. Consequently, the proposed rules may result in no change in housing production in the areas of where the landfills are located.

Each landfill presents its own unique set of environmental, financial, and societal circumstances. It is these site specific circumstances that will determine whether housing production is changed as a result of the proposed rules. Therefore, the Department believes it is not possible to predict with any certainty whether the proposed rules will evoke a change in housing production in Planning Areas 1 or 2, or within designated centers.

**Full text** of the proposal follows (additions indicated in boldface **thus**; deletions indicated in brackets [thus]):

CHAPTER 26

SOLID WASTE

SUBCHAPTER 1. GENERAL PROVISIONS

7:26-1.4 Definitions

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The following words and terms, when used in this chapter, shall have the following meanings unless the context clearly indicates otherwise.

...

["Clean fill" means an uncontaminated nonwater-soluble, nondecomposable, inert solid such as rock, soil, gravel, concrete, glass and/or clay or ceramic products. Clean fill shall not mean processed or unprocessed mixed construction and demolition debris, including, but not limited to, wallboard, plastic, wood or metal. The non-water soluble, non decomposable inert products generated from an approved Class B recycling facility are considered clean fill.]

...

**"Contaminated soil" means soil, soil-like material, or mixtures of soil with other material containing concentrations of one or more contaminants that exceed the residential direct contact soil remediation standards or non-residential direct contact soil remediation standards, whichever is more stringent, as set forth in N.J.A.C. 7:26D, Remediation Standards.**

...

"**Legacy landfill" means a sanitary landfill that ceased operations prior to January 1, 1982, and received for disposal:**

**1. Solid waste; or**

**2. Waste material that was received for disposal prior to October 21, 1976, and that is included within the definition of hazardous waste adopted by the Federal government pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6921 et seq.**

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...

"Sanitary landfill**"** means a solid waste facility, at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal or storage for a period of time exceeding six months, except that it shall not include any waste facility approved for disposal of hazardous waste. Sanitary landfills shall be further classified into one of the following classes:

1. – 2. (No change.)

3. "Class III sanitary landfill" means a solid waste facility [which] **that** may accept only inert nonputrescible nonhazardous solid waste, ID 13**, 13C,** or 23.

7:26-1.6 Definition of solid waste

(a) A solid waste is any garbage, refuse, sludge, **processed or unprocessed mixed construction and demolition debris, including, but not limited to, wallboard, plastic, wood, or metal,** or any other waste material**,** except it shall not include the following:

1. – 3. (No change.)

4. Spent sulfuric acid [which] **that** is used to produce virgin sulfuric acid, provided at least 75 percent of the amount accumulated in recycled in one year; [or]

5. Dredged material, from New Jersey's coastal or tidal waters, which is regulated under the provisions of the following statutes: New Jersey Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.), Waterfront Development Law (N.J.S.A. 12:5-3 et seq.), Riparian Interests (N.J.S.A. 12:3-1 et seq. and 18:56-1 et seq.), Federal Water Pollution Control Act of 1972 as amended by the Clean Water Act of 1977 (33 U.S.C. § 1251), and Federal Coastal Zone

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Management Act (16 U.S.C. §§ 1451 et seq.)**,** and/or other relevant statutes and implementing regulations[.]**; or**

**6. Non-water-soluble, non-decomposable, inert solid, such as rock, soil, gravel, concrete, glass, and/or clay or ceramic products that do not contain concentrations of one or more contaminants that exceed the residential direct contact soil remediation standards or non-residential direct contact soil remediation standards, whichever is more stringent, as set forth in N.J.A.C. 7:26D, Remediation Standards.**

(b) - (d) (No change.)

SUBCHAPTER 2. DISPOSAL

7:26-2.8 Registration and general prohibitions

(a) – (l) (No change.)

(m) No permittee shall begin construction of a sanitary landfill until the Department approves the final Quality Assurance/Quality Control Plan submitted in accordance with N.J.A.C. 7:26-[2A.8]**2A.5**.

(n) No permittee shall begin operating a sanitary landfill, composting or co-composting facility, transfer station, materials [recover] **recovery** facility, or thermal destruction facility until:

1. (No change.)

2. The Department receives and approves the certification of construction prepared by a N.J. licensed professional engineer in accordance with N.J.A.C. 7:26-[2A.9(a)]**2A.7(a)**.

(o) – (s) (No change.)

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SUBCHAPTER 2A. ADDITIONAL, SPECIFIC DISPOSAL REGULATIONS FOR SANITARY LANDFILLS

7:26-2A.1 Scope and applicability

(a) – (b) (No change.)

(c) This subchapter shall apply to the following facilities:

1. All newly proposed sanitary landfills and all existing sanitary landfills proposing to expand their existing operations onto previously unfilled permitted areas; [and]

2. Any existing sanitary landfills operating as an open dump or in an environmentally unsound manner [which] **that** the Department determines needs to be environmentally upgraded[.]**; and**

**3. Any sanitary landfill for the purpose of regulating disruptions pursuant to N.J.A.C. 7:26-2A.8(j), control of smoking, smoldering, or burning landfills pursuant to N.J.A.C. 7:26-2A.8(k), and closure and post-closure care pursuant to N.J.A.C. 7:26-2A.9.**

(d) – (e) (No change.)

[7:26-2A.3 Purpose

(a) This subchapter is promulgated for the following purpose:

1. To establish additional engineering design submission requirements for sanitary landfills;

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2. To establish requirements and standards for the design and construction of sanitary landfills to insure that adverse impacts are minimized and controlled and that pollution of the environment is prevented; and

3. To establish additional requirements for the operation, maintenance, inspection and monitoring of sanitary landfills to ensure the proper operation of the sanitary landfill so as to minimize and control adverse impacts and prevent pollution of the environment.]

**7:26-2A.3 Purpose**

**(a) This subchapter is promulgated to establish requirements for sanitary landfills in order to prevent, minimize, and control adverse impacts to human health and the environment and to enhance, where appropriate, the potential for reuse or redevelopment of sanitary landfill sites after closure. These requirements are in addition to the general engineering design submission requirements at N.J.A.C. 7:26-2.10, and the general operation requirements at N.J.A.C. 7:26-2.11. These requirements include:**

**1. General prohibitions;**

**2. Engineering design submissions;**

**3. Performance, design, and construction standards;**

**4. Operation, maintenance, inspection, and monitoring requirements;**

**5. Disruption requirements;**

**6. Closure and post-closure care requirements; and**

**7. Financial assurance for continuing obligations.**

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7:26-2A.4 General prohibitions and requirements

(a) (No change.)

(b) No new sanitary landfill shall be constructed or any existing landfill continue to operate where solid waste is or would be in contact with the surface or ground waters. [This provision shall not apply to cleanfill.]

(c) – (q) (No change.)

7:26-2A.7 Sanitary landfill engineering design standards and construction requirements

(a) – (g) (No change.)

(h) The following are the design and construction requirements and standards for monitoring systems:

1. (No change.)

2. The Department may require any or all of the following components for the landfill monitoring system designed and constructed pursuant to (h)1 above: groundwater monitoring system, hydrostatic pressure gradient monitoring system, gas monitoring system, leachate monitoring system, meteorological monitoring system**,** [and] slope and settlement monitoring system**, and hydrogen sulfide monitoring system**;

3. – 7. (No change.)

8. A meteorological monitoring system shall be installed within the landfill properties to measure and continuously record the daily precipitation onto the sanitary landfill, unless such data from a nearby meteorological station are available; [and]

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9. A slope and settlement monitoring system shall be designed and constructed in accordance with the following:

i. (No change.)

ii. Sanitary landfills, when required by the Department, based on the final elevation and grades of the capping system and the foundation analysis, shall install slope inclinometers to adequately measure the slope stability and integrity[.]**; and**

**10. The Department may require the owner or operator to design and install a hydrogen sulfide ambient air monitoring system based upon the Department's determination that the sanitary landfill is the source of a verified odor complaint or an exceedance of the hydrogen sulfide standard at N.J.A.C. 7:27-7.3:**

**i. In determining whether to require a monitoring system for hydrogen sulfide, the Department shall consider:**

**(1) The cause of the hydrogen sulfide odor;**

**(2) Actions taken to mitigate the odor;**

**(3) History of odor violations and complaints attributed to the sanitary landfill;**

**(4) Location and dimensions of the sanitary landfill;**

**(5) Locations of off-site areas of human use or occupancy;**

**(6) Material that has been placed in the landfill;**

**(7) Material that is planned to be placed on the landfill;**

**(8) Monitored levels of hydrogen sulfide; and**

**(9) Any other factors related to hydrogen sulfide emissions from the sanitary landfill and their potential off-site impacts.**

**ii. The hydrogen sulfide monitoring system shall be designed in accordance with 40 CFR Part 58, Appendix D. The system shall also meet the following requirements:**

**(1) Monitors shall have a minimum hydrogen sulfide detection level at or below 10 ppbv with a minimum accuracy of +/- 10 percent when measuring 30 ppbv of hydrogen sulfide;**

**(2) Monitors shall either continuously measure and record the ambient hydrogen sulfide concentrations, or measure with measurement intervals not to exceed five minutes to determine a representative ambient hydrogen sulfide concentration over a 30-minute averaging period;**

**(3) The system shall be designed to account for manufacturer's specifications for instrumentation. For example, instrumentation may require temperature regulated enclosures;**

**(4) Monitors shall be sited at a minimum of two locations. One location shall be in the area expected to have the maximum, or near maximum, off-site concentrations of hydrogen sulfide releases from the sanitary landfill, and one shall be located approximately 180 degrees from the first location, relative to the landfill. Additional sites may be necessary depending on prevailing meteorology, terrain, and the location of sensitive receptors, for example, schools, hospitals, and nursing homes;**

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**(5) The location of the monitoring sites shall consider obstruction to wind flow from the sanitary landfill to the sensors;**

**(6) Monitoring sites shall comply with the general probe siting criteria described in 40 CFR Part 58, Appendix E; and**

**(7) The monitoring system shall include at least one weather station capable of measuring and recording local meteorological data, including wind speed and direction, temperature, humidity, and barometric pressure. An existing weather station can be used if conditions at the weather station are shown to be representative of conditions at the sanitary landfill.**

(i) (No change.)

7:26-2A.8 Sanitary landfill operational and maintenance requirements

(a) (No change.)

(b) The sanitary landfill shall be operated in accordance with the following additional minimum requirements:

1. – 7. (No change.)

8. Daily application of cover may be exempted if the solid waste meets the following criteria:

i. (No change.)

ii. The uncovered solid waste will not create a safety hazard as determined by the Department; **and**

[iii. The solid waste is a clean fill; and]

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[iv.] **iii.** (No change in text.)

9. - 29. (No change.)

30. The sanitary landfill shall not [cause] **emit** any air contaminant [to be emitted] in violation of N.J.A.C. 7:27-5.2(a) **or 7.3**.

[i. Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used.

ii. Malodorous solid waste shall be covered immediately after unloading with a minimum of six inches of cover material or approved alternative material;]

**i. Air contaminant emissions from the sanitary landfill shall be controlled by:**

**(1) Use of adequate daily, intermediate, and final cover. Malodorous solid waste shall be covered immediately after unloading with a minimum of six inches of cover material or approved alternate material;**

**(2) Proper design, installation, operation, and maintenance of a landfill gas collection and venting system in accordance with N.J.A.C. 7:26-2A.7 and 2A.8; and**

**(3) Any other means of air contaminant emission control that the Department approves to control odors from the sanitary landfill, including, but not limited to, air pollution controls that may be required by the Air Pollution Control regulations at N.J.A.C. 7:27-8 and 22.**

**ii. Within one hour after becoming aware of an air contaminant concentration that has the potential to cause an odor complaint, air pollution as defined in N.J.A.C.**

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**7:27-5, or an exceedance of the hydrogen sulfide standard in N.J.A.C. 7:27-7.3, the owner or operator of the sanitary landfill from which the air contaminant is being emitted shall notify the Department at 1-877-WARNDEP and take all reasonable measures to control the emissions. Reasonable measures shall include, but need not be limited to, providing additional cover, adjusting or increasing vacuum in the gas collection and venting system, installing additional gas collection wells or piping, adjusting or upgrading emissions control devices, and excavation and replacement or removal of malodorous waste;**

31. - 46. (No change.)

(c) – (g) (No change.)

(h) Monitoring shall be performed in accordance with the following parameters and schedules:

1. – 9. (No change.)

10. The daily precipitation data from the meteorologic monitoring system shall be compiled and submitted on a quarterly basis to the Division[.]**;**

11. The settlement and slope data shall be compiled and submitted on a quarterly basis to the Division[.]**; and**

**12. If a hydrogen sulfide ambient monitoring system is required by the Department pursuant to N.J.A.C. 7:26-2A.7(h)10, hydrogen sulfide monitoring shall meet the following requirements:**

**i. Monitoring for hydrogen sulfide and meteorological conditions, including wind speed and direction, temperature, humidity, and barometric pressure, shall take**

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**place 24 hours a day at a frequency approved by the Department for the duration of the monitoring program, unless the Department approves an alternate monitoring schedule;**

**ii. All hydrogen sulfide and meteorological data shall be continuously logged based on the measurement intervals of the sensors that generate the data unless another recording frequency is approved by the Department;**

**iii. All hydrogen sulfide and meteorological data shall be made accessible via a website that is created and maintained by the owner or operator of the sanitary landfill, and is updated at least hourly unless a different reporting method is approved by the Department;**

**iv. A written summary report shall be provided to the Department no less frequently than the 15th day of each calendar month for all monitoring results generated in the prior calendar month or in accordance with a schedule approved by the Department. The report shall be sufficient to provide the Department with the information necessary to determine the maximum hydrogen sulfide concentrations measured at and beyond the property line of the landfill. The report shall also identify any exceedances of the hydrogen sulfide standard and the actions taken to mitigate and eliminate the potential for a verified odor complaint, air pollution, as defined in N.J.A.C. 7:27-5, or an exceedance of the standard in N.J.A.C. 7:27-7.3;**

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**v. Monitoring instruments shall be operated in accordance with manufacturer's specifications;**

**vi. Monitoring shall meet the quality assurance requirements of 40 CFR Part 58, Appendix A, incorporated herein by reference;**

**vii. Monitoring procedures and documentation shall be subject to audit by the Department or its designee, and equipment shall be subject to independent verification by the Department or its designee; and**

**viii. The monitoring program shall continue until such time as the Department determines that monitoring is no longer necessary based on the monitoring results and the factors in N.J.A.C. 7:26-2A.7(h)10.**

(i) (No change.)

(j) Approval of and standards for disruption of landfills shall be in accordance with the following:

1. Written approval for disruptions shall be obtained from the Department prior to any excavation, disruption, relocation**,** or removal of any deposited material, which may or may not involve solid waste, from either an active, terminated, or closed sanitary landfill. Specific guidance for the preparation of an application for disruption approval is provided in the Department's Technical Manual for [the Division of Solid and Hazardous Waste, Bureau of Landfill, Compost and Recycling Management,] **Sanitary** Landfill Permits **and Approvals**. For the purposes of this section, disruptions are defined as follows:

i. – iii. (No change.)

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2. – 3. (No change.)

4. Adequate measures shall be taken during excavation to control dust, odors, fires, rodents, insects, blowing litter, surface water run-on**,** and erosion; [and]

5. The disposal of all solid waste resulting from the excavation shall be in conformance with the requirements of N.J.A.C. 7:26-2.11[.]**;**

**6. Disruption activities shall be overseen by a New Jersey licensed professional engineer; and**

**7. The person conducting the disruption activity shall submit reports to the Department meeting the following requirements:**

**i. During the period of disruption activities, quarterly reports describing the progress of the disruption activities shall be submitted. The report shall be submitted within 15 days after the end of each calendar quarter;**

**ii. Within 30 days of completion of disruption activities, a final report shall be submitted. The final report shall include, but not be limited to, a narrative describing the disruption activities and the results of any investigations, data generated during any investigatory work, such as boring logs and sampling results, and as-built drawings of any construction activity; and**

**iii. The reports required by (j)7i and ii above shall be certified by a New Jersey licensed professional engineer. In addition to certifying the content of the report, the professional engineer shall certify that all provisions and prohibitions of the disruption approval were complied with during disruption activities.**

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(k) - (l) (No change.)

7:26-2A.9 Closure and post-closure care of sanitary landfills

[(a) This section shall govern the closure and post-closure care of all sanitary landfills. This section includes requirements for the preparation of a Closure and Post-Closure Plan, as defined in (d)1 below, for all new sanitary landfills and every sanitary landfill operating on or after January 1, 1982. It also establishes requirements concerning establishment and use of the escrow accounts required pursuant to the Sanitary Landfill Facility Closure and Contingency Fund Act, N.J.S.A. 13:1E-100 et seq., and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., for every sanitary landfill operating on or after January 1, 1982.]

**(a) This section shall govern the following activities:**

**1. Closure and post-closure care at all sanitary landfills;**

**2. Preparation of a Closure and Post-Closure Plan for all sanitary landfills;**

**3. Establishment and use of escrow accounts required pursuant to the Sanitary Landfill Facility Closure and Contingency Fund Act, N.J.S.A. 13:1E-100 et seq., and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., for every sanitary landfill operating on or after January 1, 1982;**

**4. Establishment and use of escrow accounts required pursuant to N.J.S.A. 13:1E-125.6 for legacy landfills and closed sanitary landfill facilities; and**

**5. Acceptance of materials by legacy landfills or closed sanitary landfill facilities pursuant to N.J.S.A. 13:1E-125.1 et seq.**

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(b) The following words and terms, when used in this section, shall have the following meanings. Where words and terms are used [which] **that** are not defined [herein] **in this subsection**, the definitions of those words and terms will be the same as the definitions found in N.J.A.C. 7:26-1.4:

...

**"Closed sanitary landfill facility" means a sanitary landfill, or a portion of a sanitary landfill, for which performance is complete with respect to all activities associated with the design, installation, purchase, or construction of all measures, structures, or equipment required by the Department, pursuant to law, in order to prevent, minimize, or monitor pollution or health hazards resulting from a sanitary landfill subsequent to the termination of operations at any portion thereof, including, but not necessarily limited to, the placement of earthen or vegetative cover, and the installation of methane gas vents, monitors, and air pollution control devices and leachate monitoring wells or collection systems at the site of any sanitary landfill.**

...

"Closure" **or "closure costs"** means the construction and implementation of all environmental safeguards required by law or by the sanitary landfill's approved Closure and Post-Closure Plan and the facility's approved engineering design subsequent to the termination of operations at any portion of that facility**, and the cost thereof**. Closure **or closure costs** may include**,** but is not limited to**,** all activities and costs associated with the design, purchase, construction**,** and maintenance of all items in order to prevent, minimize**,** or monitor pollution or health hazards

resulting from sanitary landfills subsequent to the termination of operations at any portion thereof, including**,** but not necessarily limited to, the costs of **placement or regrading of fill material,** placement of acceptable cover, the installation of methane gas monitoring, venting, or evacuation systems, the installation and monitoring of wells or leachate collection**,** and control systems at the site or in the vicinity of any sanitary landfill.

**"Closure Act escrow account" means an interest-bearing account with an accredited financial institution as escrow agent, in which funds shall be deposited by the owner or operator of every sanitary landfill pursuant to the Sanitary Landfill Closure and Contingency Fund Act, N.J.S.A. 13:1E-100 et seq., and this section. This account shall be based upon a standard escrow agreement provided by the Department for execution by and between the escrow agent and the owner or operator of the sanitary landfill. There shall be only one Closure Act escrow account for each sanitary landfill, unless otherwise authorized by the Department.**

...

["Escrow account" means an interest-bearing account with an accredited financial institution as escrow agent, wherein funds shall be deposited by the owner or operator of every sanitary landfill pursuant to N.J.S.A. 13:1E-100 et seq., and this section. This account shall be based upon the standard escrow agreement provided by the Department for execution by and between the escrow agent and the owner or operator of the sanitary landfill. There shall be only one escrow account for each sanitary landfill, unless otherwise authorized by the Department.]

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**"Legacy landfill escrow account" means an interest-bearing account with an accredited financial institution as escrow agent, in which funds shall be deposited by the owner or operator of a legacy landfill or closed sanitary landfill facility pursuant to N.J.S.A. 13:1E-125.6, and this section. The account shall be based upon an escrow agreement provided by the Department for execution by and between the escrow agent and the owner or operator of the legacy landfill or closed sanitary landfill facility.**

...

**"Material acceptance protocol" means a protocol setting forth the types, quantities, uses, and specifications of material proposed for acceptance subsequent to termination of solid waste disposal operations at a sanitary landfill, or any portion thereof, and the procedures to be implemented by the owner or operator to accept and manage such material.**

...

(c) General closure and post-closure care requirements are as follows:

1. – 2. (No change.)

3. No person shall contract to sell any land [which] **that** has been utilized as a sanitary landfill [facility] at any time unless the contract of sale for the land describes such use and the period of time that the land was so utilized, as required in [(c)4] **(c)8** below. Upon written request, any prospective purchaser of such land may obtain from the Department a history of the compliance by the landfill with all applicable statutes, rules**,** and regulations administered by the Department.

**4. The owner or operator of a sanitary landfill shall hire a New Jersey licensed professional engineer to oversee closure and any other activities at the sanitary landfill.**

**5. During the closure period, the owner or operator shall submit quarterly reports in a format approved by the Department of closure and other activities performed at the sanitary landfill. Quarterly reports shall be certified by a New Jersey licensed professional engineer, who shall certify that all wastes and materials accepted at the site for any purpose were weighed, sampled, and tested in accordance with the approved material acceptance protocol required pursuant to (e)4 below, and all provisions and prohibitions of any administrative consent order, closure or post-closure plan, permit, or approval were complied with during that quarter. The report shall be submitted within 15 days after the end of each calendar quarter.**

**6. Within six months after closure of the sanitary landfill, the owner or operator of the sanitary landfill shall obtain and submit to the Department an "as-built" certification by a New Jersey licensed professional engineer, certifying that each provision of the Closure and Post-Closure Plan has been implemented as designed and approved, subject to the following requirements:**

**i. A New Jersey licensed professional engineer shall certify, in writing, to the Department that he or she has supervised the construction of each major phase of the sanitary landfill's closure. He or she shall further certify that each phase has been prepared and constructed in accordance with the closure design approved by the Department. The certification shall include as-built drawings;**

**ii. The New Jersey licensed professional engineer shall certify that the materials utilized in the closure of the sanitary landfill are in conformance with and meet the specifications of the approved closure design and materials accepted at the site for any purpose were weighed, sampled, and tested according to a protocol approved in advance by the Department;**

**iii. There shall be no deviation from the approved closure design without the prior written approval of the design engineer and, at a minimum, prior verbal approval by the Department.**

**7. All certifications required by (c)5 and 6 above shall bear the raised seal of the New Jersey licensed professional engineer, his or her signature, and the date of certification. The certification shall include the following statement: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals under my supervision, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for civil administrative penalty pursuant to N.J.A.C. 7:26-5 and that submitting false information may be grounds for denial, revocation or termination of any solid waste facility permit or vehicle registration for which I may be seeking approval or now hold."**

Recodify existing 4.-6. as **8.-10.** (No change in text.)

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**11. During the post-closure care period, the owner or operator of a closed sanitary landfill facility shall submit post-closure evaluation reports to the Department as follows:**

**i. The owner or operator shall submit a post-closure evaluation report:**

**(1) Every 10 years beginning on or before the date that is 10 years after the date of completion of closure;**

**(2) For a closed sanitary landfill facility that as of (the effective date of this rule) is within 10 years of completion of the post-closure care period as defined in (c)9 above or the Closure and Post-Closure Plan Approval, on or before (one year after the effective date of this amendment);**

**(3) For a closed sanitary landfill facility that is in its post-closure care period on (the effective date of this amendment), but is not subject to (c)11i(2) above, on or before the next 10-year anniversary of completion of closure. For example, if closure was complete on December 5, 1997, the first post-closure evaluation report is due on or before December 5, 2017; and**

**(4) At least two years, but no earlier than three years, prior to the scheduled end of the facility's initial 30-year post-closure period and at least two years, but no earlier than three years, prior to the scheduled end of each post-closure period extension. If the owner or operator does not timely submit a complete post-closure evaluation report during this time period, the post-closure period shall be extended until no less than two years from the Department's receipt of a complete report.**

**ii. If the report proposes modifications to the Closure and Post-Closure Plan, the report shall be accompanied by a request for a modification to the Closure and Post-Closure Plan Approval, in accordance with (d)6 below; and**

**iii. A post-closure evaluation report shall be certified by a New Jersey licensed professional engineer and shall include, but not be limited to:**

**(1) A summary of the post-closure activities undertaken during the previous 10 years;**

**(2) A certification that the sanitary landfill is being maintained and is performing in compliance with the requirements of the approved Closure and Post-Closure Plan with any exceptions noted and discussed;**

**(3) An analysis of all monitoring data for trends and compliance with the closure and post-closure care requirements and the need for modifications. Monitoring data shall include, but need not be limited to, groundwater data, leachate quality and quantity data, landfill gas quality and quantity data, slope and settlement data, inspection report data, and any other applicable post-closure data;**

**(4) An evaluation of extrapolated trend data for the monitored parameters required in (c)11iii(3) above over the remaining post-closure period and a recommendation for the need to extend or reduce the post-closure care period based on the following factors:**

**(A) The potential impact of uncontrolled leachate on groundwater and surface water quality and other receptors, such as wetlands;**

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**(B) The effects of uncontrolled leachate on the chemical, physical, and structural containment systems that prevent its release;**

**(C) Groundwater monitoring results as compared to applicable standards of N.J.A.C. 7:9C, Ground Water Quality Standards;**

**(D) The status of any required groundwater corrective action;**

**(E) The potential impact of uncontrolled landfill gas on the subsurface migration of gases, odors, and the integrity of the final cover;**

**(F) The geotechnical stability (slope stability and surface settlement), vegetative stability, and integrity of the final cover;**

**(G) The integrity and function of run-on and run-off controls;**

**(H) Existing and potential future land use of the site and its surroundings; and**

**(I) Any other environmental and human health factors specific to the sanitary landfill; and**

**(5) Any other information the Department determines is necessary to determine compliance with closure and post-closure care requirements, the need for modification of those requirements, or whether the post-closure care period should be extended or reduced based upon the need to protect human health and the environment.**

(d) General requirements for a Closure and Post-Closure Plan are as follows:

1. [No person shall construct or operate a sanitary landfill without an approval from the Department of a Closure and Post-Closure Plan. Such ] **A Closure and Post-Closure** Plan

shall consist of both a Closure and Post-Closure Care Plan and a Closure and Post-Closure Financial Plan in accordance with the provisions of (e)**,** [and] (f)**, and (h)** below, except as otherwise authorized by the Department.

[2. The submission for approval by the Department of the Closure and Post-Closure Plan shall be made upon application for new sanitary landfill permit.

3. Existing sanitary landfills in operation after January 1, 1982 shall submit the Closure and Post-Closure Plan for approval by the Department in accordance with the following schedule:

i. Those sanitary landfills which ceased accepting waste during calendar year 1982 or which shall cease accepting waste during calendar year 1983 shall submit a Plan no later than three months from the effective date of this section;

ii. Those sanitary landfills not included in (d)3i above and which accept in excess of 100,000 cubic yards of waste per year, as delivered, shall submit a Plan no later than six months from the effective date of this section; and

iii. All remaining sanitary landfills not provided for in (d)3i and ii above shall submit a Plan no later than 12 months from the effective date of this section.]

**2. No person shall:**

**i. Construct or operate a sanitary landfill without an approval from the Department of a Closure and Post-Closure Plan; or**

**ii. Undertake any closure activity, construct any site improvements, or accept, for any reason, solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or**

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**any other material, at a sanitary landfill that is no longer authorized to accept solid waste for disposal, except as authorized by a disruption approval, approved Closure and Post-Closure Plan, or approved modified Closure and Post-Closure Plan.**

**3. A Closure and Post-Closure Plan shall be submitted to the Department for approval in accordance with the following schedule:**

**i. Upon application for a solid waste facility permit;**

**ii. For sanitary landfills that ceased accepting waste for disposal during calendar years 1982 or 1983, no later than September 6, 1983;**

**iii. For sanitary landfills that were in operation in 1983, continued to accept waste for disposal after 1983, and accepted in excess of 100,000 cubic yards of waste per year, as delivered, no later than December 6, 1983;**

**iv. For sanitary landfills that were in operation in 1983, continued to accept waste for disposal after 1983, and are not covered under (d)3iii above, no later than June 6, 1984;**

**v. For legacy landfills, prior to undertaking any closure activity or accepting any material at the sanitary landfill for any reason; and**

**vi. For closed sanitary landfill facilities, prior to accepting any material at the sanitary landfill for any reason, if the Department has not already authorized the acceptance.**

4. - 5. (No change.)

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6. The owner or operator [may] **shall** apply for **and obtain** Departmental approval to [amend] **modify** the Closure and Post-Closure Plan [at any time during the sanitary landfill's operation, closure or post-closure care period.] **prior to undertaking any activity that is not included in the approved Closure and Post-Closure Plan, or changing any portion of the approved Closure and Post-Closure Plan. Activities or changes that require prior Department approval include, but are not limited to, changes in the following:**

**i. Design or operation of any environmental control system;**

**ii. Design or operation of any monitoring system;**

**iii. Frequency, methods, or parameters of inspections or monitoring requirements;**

**iv. Material acceptance protocol;**

**v. Schedule for completion of closure activities;**

**vi. Reporting requirements;**

**vii. Financial plan;**

**viii. Post-closure period;**

**ix. Site plan, site usage, or construction of any improvements on the sanitary landfill property; and**

**x. Ownership or operational control.**

**7. For the purposes of this section, the transfer of a controlling interest in the stock or assets of any entity owning or operating a sanitary landfill shall constitute a change in the ownership or operational control of the facility.**

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[7.] **8.** The Department may require the [amendment] **modification** of an engineering design and a Closure and Post-Closure Plan at any time it is deemed necessary during the sanitary landfill's operation, closure**,** or post-closure care period.

Recodify existing 8. and 9. as **9. and 10.** (No change in text.)

[10. Within six months of closure of the sanitary landfill, the owner and/or operator of the sanitary landfill shall obtain and submit to the Department an "as-built" certification by a New Jersey licensed professional engineer, certifying that each provision of the Closure and Post-Closure Plan has been implemented as designed and approved, subject to the following requirements:

i. A New Jersey licensed professional engineer shall certify, in writing, to the Department that he or she has supervised the inspection of the construction of each major phase of the sanitary landfill's closure. He or she shall further certify that each phase has been prepared and constructed in accordance with the closure design approved by the Department. The certification shall include as-built drawings.

ii. A New Jersey licensed professional engineer shall certify that the materials utilized in the closure of the sanitary landfill are in conformance with and meet the specifications of the approved closure design.

iii. There shall be no deviation from the approved closure design without the prior written approval of the design engineer and, at a minimum, prior verbal approval by the Department.

iv. All certifications shall bear the raised seal of the New Jersey licensed professional engineer, his or her signature, and the date of certification.

v. The certification shall include the following statement: "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals under my supervision, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for civil administrative penalty pursuant to N.J.A.C. 7:26-5 and that submitting false information may be grounds for denial, revocation or termination of any solid waste facility permit or vehicle registration for which I may be seeking approval or now hold."]

(e) The Closure and Post-Closure Care Plan shall [meet the following specific requirements:] **include the items in (e)1 through 5 below; however, the Department may require additional closure and post-closure care measures or waive one or more of the requirements of (e)1 through 5 below, based upon the Department's evaluation of specific health and/or environmental circumstances.**

[1. The owner or operator of every sanitary landfill shall submit to the Department a Closure and Post-Closure Care Plan prepared, signed and sealed by a New Jersey licensed professional engineer to provide for closure and post-closure care of the sanitary landfill;]

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**1. The signature and seal of a New Jersey licensed professional engineer certifying that the engineering drawings, specifications, and reports applicable to this Closure and Post-Closure Plan comply with the applicable rules of the Department;**

**2. An individual, trust, firm, joint stock company, business concern, responsible corporate official, or corporation, including, but not limited to, a partnership, limited liability company, or association, that undertakes the closure of a legacy landfill, or the owner or operator of a closed sanitary landfill facility, who proposes to accept for any reason, solid waste, recyclable material, contaminated soil, cover material, wastewater treatment residual material, dredge material, construction debris, or any other waste or material shall submit the following:**

**i. A copy of the application and the preliminary or final site plan approval issued by the municipality for the project pursuant to the provisions of the Municipal Land Use Law, N.J.S.A. 40:55D-1 et seq. If preliminary site plan approval is submitted with the Closure and Post-Closure Plan, final municipal site plan approval shall be submitted to the Department prior to any closure activity or acceptance of any material at the sanitary landfill; or**

**ii. Written acknowledgement signed by an administrative or judicial official of competent jurisdiction from the municipality where the sanitary landfill is located stating that site plan approval is not required for the proposed activity;**

**3. An assessment of the sanitary landfill and its surroundings to determine the environmental controls, maintenance, and monitoring necessary for closure and post-**

**closure care. When existing documentation is not available to conduct the assessment of the sanitary landfill and its surroundings, the owner or operator shall conduct an investigation sufficient to obtain the information required to complete the assessment. The owner or operator shall apply to the Department for Sanitary Landfill Disruption Approval(s) to conduct an adequate assessment, as required by N.J.A.C. 7:26-2A.8(j). Information needed for the assessment shall include, but need not be limited to:**

**i. Topography, geology, and hydrogeology of the area;**

**ii. Surrounding land use;**

**iii. Identification of nearby human and ecological receptors and environmentally sensitive areas;**

**iv. Site access routes;**

**v. Existing and future use of the site;**

**vi. Current and prior owners and operators of the sanitary landfill;**

**vii. Time period that the sanitary landfill was used for disposal;**

**viii. Characterization of the types of wastes disposed in the sanitary landfill;**

**ix. Vertical and horizontal extent of the waste;**

**x. Existing environmental controls and their condition and effectiveness;**

**xi. Chemical characteristics of all environmental media, including soil, leachate, groundwater, and surface water; and**

**xii. Landfill gas generation rates and migration data;**

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[2.] **4.** [The Closure and Post-Closure Care Plan shall provide for the] **An engineering report addressing** design and implementation of the following:

i. – xviii. (No change.)

**xix. A program for monitoring hydrogen sulfide if required in accordance with N.J.A.C. 7:26-2A.7(h)10; and**

**xx. A material acceptance protocol that includes, but is not limited to, the following:**

**(1) An estimate of the total quantity of material proposed for acceptance;**

**(2) A description of the uses for the material proposed for acceptance, the locations where it will be used, and the quantities needed for each use;**

**(3) The physical, geotechnical, and chemical specifications required for each proposed use;**

**(4) A description of the material(s) proposed for acceptance and identification of the source(s);**

**(5) A discussion of the acceptability of the proposed uses and specifications related to any potential negative impacts to human health, safety, and the environment;**

**(6) A description of the application and evaluation process for pre-acceptance of a material from each specific source;**

**(7) A description of on-going monitoring of a source material;**

**(8) A description of sample collection, laboratory analysis, quality assurance, and data deliverable requirements for material evaluation;**

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**(9) A description of the tracking, quality control, and inspection procedures to ensure all shipments of material received are approved materials from approved sources, and a description of shipment rejection procedures;**

**(10) A description of weighing procedures, or alternate method of determining quantities of material, for received shipments;**

**(11) A description of on-site materials handling, stockpiling, and placement procedures; and**

**(12) A description of the documentation procedures, and examples of such documentation, required to demonstrate compliance with all aspects of the material acceptance protocol.**

[3. The Department may require additional closure and post-closure care measures or waive any of the above requirements, should specific health and/or environmental circumstances justify such action; and]

[4.] **5.** [The Closure and Post-Closure Care Plan shall include a] **A** schedule for the implementation of all the provisions of this section.

(f) The Closure and Post-Closure Financial Plan **for sanitary landfills that accepted solid waste for disposal on or after January 1, 1982,** shall meet the following specific requirements:

1. The owner or operator of [every] **the** sanitary landfill shall submit a Closure and Post-Closure Financial Plan to the Department [which] **that** shall set forth the costs and expenses, and establish the means for meeting those costs and expenses, associated with full implementation of the approved Closure and Post-Closure Plan.

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2. The Closure and Post-Closure Financial Plan shall include an estimate which details the cost of each provision of the Closure and Post-Closure Care Plan and a projection of funds that will be available from the **Closure Act** escrow account. Where the total expenses projected for the Closure and Post-Closure Care Plan exceed the amount of funds projected in the **Closure Act** escrow account, the owner or operator must identify specific alternative funds [which] **that** are to be dedicated to ensure payment of all costs identified in the Closure and Post-Closure Plan. The Plan shall provide:

i. That no withdrawals may be made from the **Closure Act** escrow account until such time as the funds projected in the **Closure Act** escrow account are sufficient to pay for all closure costs identified in the Closure and Post-Closure Financial Plan; or

ii. That withdrawals may be made from the **Closure Act** escrow account concurrent with the use of the alternative funds described above, provided that such alternative funds are established in a manner similar to the **Closure Act** escrow account and the expenditures from such alternative funds are made subject to the approval of the Department.

3. The Closure and Post-Closure Financial Plan shall include an estimate which details the general and administrative costs, including**,** but not limited to, fees for engineering, legal, accounting, auditing and banking services, property and sales taxes, environmental impairment and general liability insurance, Department permits and review fees, and utility costs.

i. The costs in (f)3 above for non-construction and/or maintenance services are allowable for reimbursement from the **Closure Act** escrow accounts provided that:

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(1)-(3) (No change.)

ii. (No change.)

iii. The Department shall not disburse money from the **Closure Act** escrow account for the expenses incurred by the owner and/or operator of the sanitary landfill in an effort to challenge, contest or defy the Department's rules and regulations, and any permits or orders issued pursuant thereto.

4. The Closure and Post-Closure Financial Plan shall include the intervals at which each closure provision is to be implemented as well as a projection of when each **Closure Act** escrow account withdrawal is anticipated.

5. – 6. (No change.)

(g) Pursuant to N.J.S.A. 13:1E-100 et seq., the requirements for the **Closure Act** escrow account are as follows:

1. The owner and/or operator of every sanitary landfill shall deposit in [an] **a Closure Act** escrow account as defined in (a) above, on or before the 20th of each month, an amount equal to $1.00 per ton of [solids and $0.004 per gallon of liquids of] all solid waste accepted for disposal during the preceding month[. It is noted that disposal of liquid waste in sanitary landfills is limited to only those few facilities permitted to accept such waste];

2. – 3. (No change.)

4. The **Closure Act** escrow account shall be for the closure and post-closure care of a particular sanitary landfill and all funds therein shall be used exclusively for the closure and

post-closure care of that landfill in accordance with the approved Closure and Post-Closure Plan[.]**;**

5. The owner or operator of a sanitary landfill who shall fail to deposit funds into [an]**a Closure Act** escrow account, as provided herein, or uses those funds for any purpose other than closure and post-closure care costs, as approved by the Department, shall be guilty of a crime of the third degree[.]**;**

6. Where an owner or operator has ownership or control over more than one sanitary landfill, a separate **Closure Act** escrow account must be established for each facility;

7. The **Closure Act** escrow account shall be kept separate and apart from all other accounts maintained by the owner or operator. The fact that the owner or operator has previously established an escrow account pursuant to another law, rule or regulation, does not relieve them of their responsibility to establish [an] **a Closure Act** escrow account under these rules;

8. Every **Closure Act** escrow account established pursuant to this section shall be based upon and governed by the standard escrow agreement provided for such purpose by the Department. Any revision to an escrow agreement shall first be approved by the Department and filed by the Department with the accredited financial institution as escrow agent. A copy of the standard escrow agreement provided by the Department may be obtained from the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Solid Waste Planning and Licensing, Mail Code 401-02C, [P.O.] **PO** Box 420, Trenton, NJ 08625-0420, Attention: Escrow Section[.]**;**

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9. The escrow agreement and any other document(s) evidencing the existence of the **Closure Act** escrow account must contain a reference to the purpose of the account that will put the personal creditors of the owner or operator on notice as to the nature of the account[.]**;**

10. The **Closure Act** escrow account shall be established and maintained so as to maximize yield, minimize risk and maintain liquidity, and shall be subject to the approval of the Department[.]**;**

11. All funds deposited in the **Closure Act** escrow account must be readily available in the event that circumstances necessitate the closure or post-closure care of the sanitary landfill prior to the date originally contemplated[.]**;**

12. All interest or other income that results from investment of funds in the **Closure Act** escrow account shall be deposited into the **Closure Act** escrow account and subjected to the same restrictions as the principal;

13. Withdrawals from the **Closure Act** escrow account shall be authorized by the Department upon submission and approval of a written request [which] **that** identifies the specific provision(s) of the Closure and Post-Closure Plan for which funding is sought. Authorization for such withdrawal will be granted only in accordance with the approved Closure and Post-Closure Care Plan, and after compliance with the following conditions:

i. The owner or operator has complied with all requests to [amend] **modify** the Closure and Post-Closure Plan;

ii. Except as otherwise authorized by the Department, the owner and/or operator submits to the Department[, pursuant to (e)4 above,] "as built" certifications by a New Jersey

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licensed professional engineer that the applicable provision(s) of the Closure and Post-Closure Plan for which the preceding withdrawal was obtained has been, or is being, implemented as set forth in the Closure and Post-Closure Plan; and

iii. Where the Department has approved a Closure and Post-Closure Financial Plan providing for the use of alternative funds pursuant to (f)2ii above, withdrawals from the **Closure Act** escrow account will only be authorized to the extent that the cost exceeds the balance of the alternative fund. Where the alternative fund is an account, the Department shall allow the maintenance of the minimum balance necessary to keep such account open[.]**;**

14. No withdrawals from [an] **a Closure Act** escrow account may be made without written approval of the Department, except as otherwise authorized by the Department;

15. The Department may withhold disbursements for closure or post-closure work performed if the amount to be expended in any calendar year exceeds or is projected to exceed the amount budgeted for any line item provision in the closure plan, by more than 10 percent of the line item, as updated biennially in accordance with[(f)5] **(f)6** above. The owner and/or operator shall seek and obtain Department approval prior to expending funds [which] **that** exceed or are projected to exceed budgeted costs, by letter, including revised financial schedules, identifying the overage or projected overage, the reasons for the overage and the source of the funds to cover the overage. The Department shall approve or deny disbursements based on the rationale provided by the owner and/or operator and the long term impact on closure or post-closure[.]**;**

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16. (No change.)

17. The Department may, at its discretion, determine that there is a need for closure or post-closure care expenditures and may require the owner or operator to withdraw such funds from the **Closure Act** escrow account at any time to meet such expenses;

18. Funds remaining in the **Closure Act** escrow account after complete and proper closure and post-closure care operations shall be paid into the Sanitary Landfill Facility Contingency Fund. A sanitary landfill will be deemed to be properly and completely closed where the Department determines that no further post-closure care maintenance or monitoring is necessary at the facility. When the Department makes such a determination, it shall notify the escrow agent and the owner or operator of the determination and shall supply the owner or operator with written approval for the transfer of the excess funds. Upon receipt of this written approval, all funds in said account shall be transferred to the Sanitary Landfill Facility Contingency Fund established pursuant to N.J.S.A. 13:1E-100 et seq.**,** and the account will be closed;

19. The **Closure Act** escrow account shall not constitute an asset of the owner or operator and shall be established in such a manner as to ensure that the funds in the account will not be available to any creditor other than the Department in the event of bankruptcy or reorganization of the owner or operator[.]**;**

20. The owner and/or operator of every sanitary landfill must arrange, with the financial institution wherein the funds are to be deposited, for a monthly statement of the **Closure Act** escrow account to be sent to Mail Code 401-02C, [Landfill Closure Escrow Account,]

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Bureau of Solid Waste Planning and Licensing, New Jersey Department of Environmental Protection, [P.O.] **PO** Box 420, Trenton, New Jersey 08625-0420, Attention: Escrow Section; provided, however, the Department may at its discretion upon written petition from the owner and/or operator relieve the owner and/or operator from the requirement for the monthly statement of the **Closure Act** escrow account and substitute a quarterly (that is, once every three months) statement requirement therefor if it determines that monthly reporting on an account of less than $25,000 would impose an unnecessary burden on the financial institution;

21. The owner or operator of every sanitary landfill shall file with the Department, in duplicate, an annual audit of the **Closure Act** escrow account established for the closure of the sanitary landfill. The annual audit of the **Closure Act** escrow account shall be conducted by a New Jersey certified public accountant and shall be filed with the Department no later than October 31 of each year, including each of the post-closure care period years. For the purposes of the **Closure Act** escrow account only, the fiscal year shall begin on October 1 and terminate on September 30 of the following year, except that fiscal year 1982 shall begin on January 1, 1982**,** and terminate on September 30, 1982; **and**

22. The owner or operator of every sanitary landfill [facility] shall file, on or before the 20th of every month, with the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Solid Waste Planning and Licensing, Mail Code 401-02C, [P.O.] **PO** Box 420, 401 East State Street, Trenton, New Jersey 08625-0420, Attention: Escrow Section, a statement showing the exact amounts of all solid waste accepted for

disposal during the preceding month, the total amounts of solid waste received calendar year-to-date, the funds deposited in and withdrawn from the **Closure Act** escrow account for the particular sanitary landfill during the current month, interest accrued, **Closure Act** escrow account balance, and the total calendar year-to-date funds deposited in and withdrawn from the **Closure Act** escrow account. These statements shall be filed on forms provided by the Department; provided, however, the Department may at its discretion upon written petition from the owner or operator relieve the owner or operator from the requirement for monthly reports and substitute a quarterly (that is, once every three months) reporting requirement therefor, if it determines that the monthly reporting on an account of less than $25,000 would impose an unnecessary burden on the owner or operator.

**(h) The Closure and Post-Closure Financial Plan for any legacy landfill or closed sanitary landfill facility whose owner or operator accepts recyclable material, contaminated soil, wastewater treatment residual material, or construction debris shall meet the following specific requirements. For the purpose of this subsection, the above listed material types do not include dredged material as defined in N.J.A.C. 7:26-1.4. Where a sanitary landfill is subject to the Financial Plan requirements of both (f) above and this subsection, the owner or operator shall submit one Financial Plan that addresses both subsections:**

**1. The Financial Plan shall include detailed estimates of all costs and expenses associated with full implementation of the measures required by the Department for closure and post-closure care of the sanitary landfill:**

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**i. Separate estimates shall be provided for closure activities and post-closure operations, maintenance, and monitoring.**

**(1) Costs for closure activities shall include, but are not limited to, costs for the design, purchase, installation, and construction of all environmental safeguards for closure and other closure-related costs incurred in the period prior to and during closure construction before closure certification is submitted. Closure costs shall also include the costs to manage any material that is not acceptable to the Department for use as final cover received at a closed sanitary landfill facility and any costs associated with re-establishment of environmental safeguards due to the acceptance of such material.**

**(2) Post-closure care costs shall include costs incurred to operate, maintain, and monitor the sanitary landfill in accordance with the Closure and Post-Closure Care Plan and applicable rules during the post-closure care period, as defined in (c)5 above, with the exception of any costs covered by (h)1i(1) above;**

**ii. Closure costs do not include costs for planned redevelopment or site improvements that are not related to the required closure environmental safeguards;**

**iii. The cost estimates shall reflect the cost of closure and post-closure care of the sanitary landfill at the point when the extent of the project and condition of the site would make closure and post-closure care most expensive;**

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**iv. The cost estimates shall be based upon how much it would cost a third party (someone other than the owner or operator) to undertake closure; and**

**v. The cost estimates shall take into consideration the effect of inflation on closure and post-closure care expenses;**

**2. The Financial Plan shall include documentation that the owner or operator has established financial assurance for closure in an amount equal to or greater than the cost estimate for closure activities required above:**

**i. Financial assurance shall be maintained and shall remain in effect for a term not less than the actual time necessary to complete all closure activities at the legacy landfill or closed sanitary landfill facility;**

**ii. Financial assurance shall be established by surety bond, letter of credit, or line of credit, individually or in combination, upon which the Department may draw directly to fund closure in the event of failure to comply with an administrative consent order, agreement, closure or post-closure plan, or other permit or approval issued by the Department;**

**iii. If any part of the financial assurance is provided by a surety bond or letter of credit, the owner or operator shall establish a standby trust agreement for the benefit of the Department to receive any funds paid out by the provider of the financial assurance;**

**iv. Original surety bonds, letters of credit, lines of credit, and trust agreements used to comply with these requirements shall be submitted as part of the Financial Plan;**

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**v. Financial assurance established to comply with this subsection shall also comply with the requirements of (j) below;**

**vi. Any person who fails to establish financial assurance, deposits, or places any waste or material prior to establishment of financial assurance, or uses those funds for any purpose other than closure costs as approved by the Department, or to pay damages or claims as approved by the Department or by a court, shall be guilty of a crime of the third degree;**

**3. The Financial Plan shall demonstrate that upon completion of closure, sufficient funds shall be available to pay the estimated costs of post-closure operation, maintenance, and monitoring. The Financial Plan shall include, at a minimum, the following:**

**i. The legacy landfill escrow account for the sanitary landfill required by N.J.S.A. 13:1E-125.6 and (i) below;**

**ii. The most recent monthly balance of the legacy landfill escrow account(s);**

**iii. An estimate of the quantity of recyclable material, contaminated soil, wastewater treatment residual material, and construction debris to be accepted at the sanitary landfill;**

**iv. Based upon projected revenue and materials management costs, the proposed dollar amount per ton of recyclable material, contaminated soil, wastewater treatment residual material, and construction debris to be deposited monthly in the**

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**legacy landfill escrow account to pay for post-closure costs, but in no case shall the deposit be less than $1.00 per ton; and**

**v. Where total expenses projected for the post-closure operations, maintenance, and monitoring exceed the amount of funds projected in the legacy landfill escrow account, specific alternative funds that are to be dedicated to an alternative funds escrow account through a written instrument, such as a contract or lease agreement, to ensure payment of all post-closure operation, maintenance, and monitoring costs;**

**4. The Financial Plan shall include one or more Certificate(s) of Insurance demonstrating that the owner or operator maintains liability insurance to pay for damages and claims resulting from operation or closure of the legacy landfill or closed sanitary landfill facility. The liability coverage shall meet the following requirements:**

**i. The insurance shall cover claims arising from an insured's general liability due to damage or injury caused by negligence or acts of omission during performance of his or her duties or business;**

**ii. The insurance shall also provide coverage in an amount of at least $4 million per occurrence and $8 million annual aggregate, exclusive of legal defense costs, for bodily injury and property damage to third parties from sudden and non-sudden pollution conditions that arise from the insured facility including the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials, or other irritants, contaminants, or pollutants into or upon land, the atmosphere, or any watercourse or body of water;**

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**iii. The insurance provider shall meet the requirements of (j)1 below;**

**iv. Certificates of liability insurance for coverage required by (h)4ii above shall be worded as specified in (j)6 below; and**

**v. The liability insurance coverage in (h)4i and ii above shall be maintained through the entirety of the closure and post-closure care period;**

**5. All aspects of the Financial Plan shall be certified by a New Jersey licensed professional engineer;**

**6. The Financial Plan shall be updated, re-certified, and submitted to the Department for approval every two years after commencement of approved activities on the legacy landfill or closed sanitary landfill facility.**

**i. In the event of an increase in the cost estimate of closure activities, the owner or operator shall increase the amount of the financial assurance to an amount at least equal to the new estimate;**

**ii. If the closure cost estimate decreases, the owner or operator may submit a written request to the Department to reduce the amount of the financial assurance required. This request shall include a certification by a New Jersey licensed professional engineer detailing the decrease in the cost estimate, as applicable. The financial assurance maybe reduced to the amount of the new estimate upon written approval by the Department; and**

**iii. The dollar amount per ton of recyclable materials, contaminated soil, wastewater treatment residual material, and construction debris deposited in the**

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**legacy landfill escrow account may be adjusted by the Department based upon a review of actual revenues and a revised estimate of post-closure costs.**

**(i) Pursuant to N.J.S.A. 13:1E-125.6, the requirements for the legacy landfill escrow account are as follows:**

**1. The owner or operator of each legacy landfill and each closed sanitary landfill facility that accepts on or after June 26, 2013, any recyclable material, contaminated soil, wastewater treatment residual material, or construction debris shall establish a legacy landfill escrow account as defined in (a) above. This account shall constitute an escrow account for the post-closure operation, maintenance, and monitoring costs of the legacy landfill or closed sanitary landfill facility. For the purpose of this subsection, the above listed material types do not include dredged material as defined in N.J.A.C. 7:26-1.4;**

**2. The owner or operator shall deposit, on or before the 20th of each month, into the legacy landfill escrow account an amount per ton, as determined by the Department in accordance with the approved Closure and Post-Closure Plan, of recyclable material, contaminated soil, wastewater treatment residual material, and construction debris accepted during the preceding month at the legacy landfill or closed sanitary landfill facility;**

**3. In the event that any waste or material is measured, upon acceptance, by a metric other than tons, the amount to be deposited shall be calculated by using the equivalents thereof as shall be determined by the Department;**

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**4. Any owner or operator of a legacy landfill or closed sanitary landfill facility who fails to deposit funds into a legacy landfill escrow account, as provided in this subsection, or uses those funds for any purpose other than post-closure costs, as approved by the Department, shall be guilty of a crime of the third degree;**

**5. Where an owner or operator has ownership or control over more than one legacy landfill or closed sanitary landfill facility, a separate legacy landfill escrow account shall be established for each facility;**

**6. The legacy landfill escrow account shall be kept separate and apart from all other accounts maintained by the owner or operator. The fact that the owner or operator has previously established an escrow account pursuant to another law, rule, or regulation, does not relieve him or her of his or her responsibility to establish a legacy landfill escrow account under this subsection;**

**7. Every legacy landfill escrow account established pursuant to this subsection shall be based upon and governed by an escrow agreement provided for such purpose by the Department. Any revision to an escrow agreement shall first be approved by the Department and filed by the Department with the accredited financial institution as escrow agent. A copy of the escrow agreement provided by the Department may be obtained from the Department of Environmental Protection, Division of Solid and Hazardous Waste;**

**8. The escrow agreement and any other document(s) evidencing the existence of the legacy landfill escrow account shall contain a reference to the purpose of the account**

**that will put all creditors of the owner or operator on notice as to the nature of the account;**

**9. The legacy landfill escrow account shall be established and maintained so as to maximize yield, minimize risk, and maintain liquidity, and shall be subject to the approval of the Department;**

**10. All funds deposited in the legacy landfill escrow account shall be readily available in the event that circumstances necessitate post-closure care activities at the sanitary landfill prior to the date originally contemplated;**

**11. All interest or other income that results from investment of funds in the legacy landfill escrow account shall be deposited into the legacy landfill escrow account and subjected to the same restrictions as the principal;**

**12. Withdrawals from the legacy landfill escrow account shall be authorized by the Department upon submission and approval of a written request that identifies the specific provision(s) of the Closure and Post-Closure Plan for which funding is sought. Authorization for such withdrawal will be granted only in accordance with the approved Closure and Post-Closure Plan, and after compliance with the following conditions:**

**i. The owner or operator has complied with all requests to modify the Closure and Post-Closure Plan; and**

**ii. Except as otherwise authorized by the Department, the owner and/or operator submits to the Department certifications by a New Jersey licensed professional**

**engineer that the applicable provision(s) of the Closure and Post-Closure Plan for which the preceding withdrawal was obtained, has been, or is being, implemented as set forth in the Closure and Post-Closure Plan;**

**13. No withdrawals from the legacy landfill escrow account may be made without written approval of the Department, except as otherwise authorized by the Department;**

**14. The Department may withhold disbursements for post-closure work performed if the amount to be expended in any calendar year exceeds or is projected to exceed the amount budgeted for any line item provision in the closure plan, by more than 10 percent of the line item. The owner and/or operator shall seek and obtain Department approval prior to expending funds that exceed or are projected to exceed budgeted costs, by letter, including revised financial schedules, identifying the overage or projected overage, the reasons for the overage, and the source of the funds to cover the overage. The Department shall approve or deny disbursements based on the rationale provided by the owner and/or operator and the long-term impact on post-closure;**

**15. The Department, although acknowledging the need for fund expenditure totaling a specific sum may, at its discretion, grant approval for the withdrawal of only a portion thereof, conditioning subsequent approvals upon the owner or operator's verification that the sum(s) authorized have been used solely for post-closure care costs;**

**16. The Department may, at its discretion, determine that there is a need for post-closure care expenditures and may require the owner or operator to withdraw such funds from the legacy landfill escrow account at any time to meet such expenses;**

**17. Funds remaining in the legacy landfill escrow account after complete and proper closure and post-closure care operations shall be returned to the owner or operator. A sanitary landfill will be deemed to be properly and completely closed where the Department determines that no further post-closure care maintenance or monitoring is necessary at the facility. When the Department makes such a determination, it shall notify the escrow agent and the owner or operator of the determination and shall supply the owner or operator with written approval for the transfer of the excess funds in the legacy landfill escrow account to the owner or operator. Upon receipt of this written approval, all funds in the account shall be transferred to the owner or operator, as appropriate, and the account will be closed;**

**18. The legacy landfill escrow account shall not constitute an asset of the owner or operator and shall be established in such a manner as to ensure that the funds in the account will not be available to any creditor other than the Department in the event of bankruptcy or reorganization of the owner or operator;**

**19. The owner and/or operator shall arrange, with the financial institution wherein the funds are to be deposited, for a monthly statement of the legacy landfill escrow account to be sent to the Department of Environmental Protection, Division of Solid and Hazardous Waste; provided, however, the Department may, at its discretion, upon written petition from the owner and/or operator relieve the owner and/or operator from the requirement for the monthly statement of the legacy landfill escrow account and substitute a quarterly (that is, once every three months) statement requirement**

**therefor, if it determines that monthly reporting on an account of less than $25,000 would impose an unnecessary burden on the financial institution;**

**20. The owner or operator shall file with the Department an annual audit of the legacy landfill escrow account established for the post-closure of the sanitary landfill. The annual audit of the legacy landfill escrow account shall be conducted by a New Jersey certified public accountant and shall be filed with the Department no later than October 31 of each year, including each of the post-closure care period years. For the purposes of the legacy landfill escrow account only, the fiscal year shall begin on October 1 and terminate on September 30 of the following year; and**

**21. The owner or operator shall file with the Department, on or before the 20th of every month, a statement showing the amounts of recyclable materials, contaminated soil, wastewater treatment residual material, and construction debris accepted during the preceding month, the total amounts of these materials received calendar year-to-date, the funds deposited in and withdrawn from the legacy landfill escrow account for the particular sanitary landfill during the current month, interest accrued, legacy landfill escrow account balance, and the total calendar year-to-date funds deposited in and withdrawn from the legacy landfill escrow account. These statements shall be filed on forms provided by the Department provided, however, that the Department may, at its discretion, upon written petition from the owner or operator, relieve the owner or operator from the requirement for monthly reports and require quarterly reporting (that is, once every three months), if the Department determines that the monthly**

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**reporting on an account of less than $25,000 would impose an unnecessary burden on the owner or operator.**

**(j) Financial assurance and liability insurance documents required by (h) above shall comply with the following:**

**1. The provider of any form of financial assurance or liability insurance required by (h) above shall:**

**i. Be licensed to do business in New Jersey;**

**ii. Have a minimum Financial Strength Rating of A- from A. M. Best Company, Inc., A- from Standard & Poor's Ratings Service, A3 from Moody's Investors Service, or A- from Fitch Ratings, Inc. and, if the rating agency in question issues rating outlooks, shall have a rating outlook of Positive or Stable; and**

**iii. Have a statutory surplus in U.S. dollars of at least $750 million, where statutory surplus equals total admitted assets minus total liabilities, and total admitted assets means assets permitted by State law to be included in an insurance company's or bank's annual financial statements;**

**2. A surety bond required by (h)2ii above shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:**

**FINANCIAL GUARANTEE BOND**

**Date bond executed: [insert execution date]**

**Effective date: [insert effective date]**

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**Principal: [insert legal name and business address of owner or operator]**

**Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]**

**State of incorporation: [insert state of incorporation]**

**Surety(ies): [insert name(s) and business address(es) of Surety(ies)]**

**Name, address, and closure amount for the facility guaranteed by this bond: [insert name, address and closure amount for the sanitary landfill]**

**Total penal sum of bond: [insert amount of penal sum of bond]**

**Surety's bond number: [insert bond number]**

**Know All Persons By These Presents, That we, the Principal and Surety(ies) hereto are firmly bound to the New Jersey Department of Environmental Protection (hereinafter the Department), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Surety(ies), bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.**

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**Whereas said Principal is required, under the Solid Waste Management Act, as amended, and its implementing regulations to provide financial assurance for closure of the sanitary landfill identified above, and**

**Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;**

**Now, therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of the sanitary landfill for which this bond guarantees closure, in accordance with the Closure and Post-Closure Plan and other requirements of the approval as such plan and approval may be modified, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended,**

**Or, if the Principal shall provide alternate financial assurance as specified in N.J.A.C. 7:26-2A.9(h), and obtain the Department's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the Department from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.**

**The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.**

**Upon notification by the Department that the Principal has been found in violation of the closure requirements of N.J.A.C. 7:26-2A.9 for a sanitary landfill for which this bond guarantees performance of closure, the Surety(ies) shall place the closure amount**

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**guaranteed for the sanitary landfill into the standby trust fund as directed by the Department.**

**Upon notification by the Department that the Principal has failed to provide alternate financial assurance as specified in N.J.A.C. 7:26-2A.9, and obtain written approval of such assurance from the Department during the 90 days following receipt by both the Principal and the Department of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the sanitary landfill into the standby trust fund as directed by the Department.**

**The Surety(ies) hereby waive(s) notification of amendments to Closure and Post-Closure Plans, approvals, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.**

**The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.**

**The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the Department, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the Department, as evidenced by the return receipts.**

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**The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the Department.**

**In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.**

**The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is identical to the wording specified in N.J.A.C. 7:26-2A.9(j) as such regulation was constituted on the date this bond was executed.**

**Principal**

**[Signature(s)]**

**[Name(s)]**

**[Title(s)]**

**[Corporate seal]**

**Corporate Surety(ies)**

**[Name and address]**

**State of incorporation: [insert state of incorporation]**

**Liability limit: [insert liability limit]**

**[Signature(s)]**

**[Name(s) and title(s)]**

**[Corporate seal]**

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**[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.]**

**Bond premium: [insert bond premium]**

**3. A letter of credit required by h(2)ii above shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:**

**IRREVOCABLE STANDBY LETTER OF CREDIT**

**Commissioner**

**New Jersey Department of Environmental Protection**

**Dear Sir or Madam: We hereby establish our Irrevocable Standby Letter of Credit No. [insert number] in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [amount in words] U.S. dollars $[amount], available upon presentation of**

**(1) your sight draft, bearing reference to this letter of credit No. [insert number], and**

**(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Solid Waste Management Act as amended."**

**This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before**

**the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts. Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.**

**We certify that the wording of this letter of credit is identical to the wording specified in N.J.A.C. 7:26-2A.9(j) as such regulations were constituted on the date shown immediately below.**

**[Signature(s) and title(s) of official(s) of issuing institution] [Date]**

**This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"]**

**4. A standby trust agreement required by (h)2 above shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:**

**STANDBY TRUST AGREEMENT**

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**Trust agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of state] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the state of" or "a national bank"], the "Trustee."**

***Whereas*, the New Jersey Department of Environmental Protection, "Department," an agency of the State of New Jersey, has established regulations at N.J.A.C. 7:26-2A.9 applicable to the Grantor, requiring that owners or operators of certain sanitary landfills provide assurance that funds will be available when needed to cover the cost of activities relating to the closure of certain sanitary landfills.**

***Whereas*, the Grantor has elected to establish a [insert either "surety bond," or "letter of credit"] to provide all or part of such financial assurance for the sanitary landfill identified herein and is required to establish a standby trust fund able to accept payments from said instrument;**

***Whereas,* the Grantor, acting through its duly authorized officers and with the approval of the Department, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee;**

***Now, therefore,* the Grantor and the Trustee agree as follows:**

***Section 1. Definitions***

**As used in this Agreement:**

**(a) The term "Grantor" means the sanitary landfill owner or operator who enters into this Agreement and any successors or assigns of the Grantor.**

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**(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.**

***Section 2. Identification of the Sanitary Landfill and Financial Assurance Mechanism***

**This Agreement pertains to the sanitary landfill(s) identified on Schedule A. [On Schedule A, list the name, address, tax block(s) and lot(s), municipality(ies), and county(ies) of each sanitary landfill covered by this standby trust agreement].**

**This Agreement pertains to the [identify the financial assurance mechanism, either a surety bond, or letter of credit, from which the standby trust fund is established to receive payments].**

***Section 3. Establishment of Fund***

**The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of the Department. The Grantor and the Trustee intend that no third party shall have access to the Fund except as herein provided. The Fund is established initially as a standby trust fund to receive certain payments and shall not consist of any property. Payments made by the provider of financial assurance pursuant to the Commissioner of the Department's instructions are transferred to the Trustee and are referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to**

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**collect from the Grantor as provider of financial assurance, any payments necessary to discharge any liability of the Grantor established by the Department.**

***Section 4. Payment for Closure Activities***

**The Trustee shall make payments from the Fund as the Commissioner of the Department shall direct, in writing, for the costs of activities relating to the closure of the sanitary landfills covered by the financial assurance mechanism identified in this Agreement.**

**The Fund may not be drawn upon to cover any of the following:**

**(a) Any obligation of [insert name of sanitary landfill owner or operator] under a workers' compensation, disability benefits, or unemployment compensation law or other similar law;**

**(b) Bodily injury to an employee of [insert name of owner or operator] arising from, and in the course of employment by [insert name of owner or operator];**

**(c) Bodily injury or property damage arising from the ownership, maintenance, use, or entrustment to others of any aircraft, motor vehicle, or watercraft;**

**(d) Property damage to any property owned, rented, loaned to, in the care, custody, or control of, or occupied by [insert name of owner or operator] that is not the direct result of a discharge from the facility;**

**(e) Bodily injury or property damage for which [insert name of owner or operator] is obligated to pay damages by reason of the assumption of liability in a contract or**

**agreement other than a contract or agreement entered into to meet the requirements of N.J.A.C. 7:26-2A.9**

**The Trustee shall reimburse the Grantor, or other persons as specified by the Commissioner of the Department, from the Fund for closure activities in such amounts as the Commissioner of the Department shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the Commissioner of the Department specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.**

***Section 5. Payments Comprising the Fund***

**Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.**

***Section 6. Trustee Management***

**At such time as the corpus of the Fund is funded, the Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Department may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge its duties with respect to the trust fund solely in the interest of the Department and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with**

**such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:**

**(i) Securities or other obligations of the Grantor, or any other owner or operator of the sanitary landfill, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a state government;**

**(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or state government; and**

**(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.**

***Section 7. Commingling and Investment***

**The Trustee is expressly authorized in its discretion:**

**(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and**

**(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. §§ 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.**

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***Section 8. Express Powers of Trustee***

**Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:**

**(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;**

**(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;**

**(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and**

**records of the Trustee shall at all times show that all such securities are part of the Fund;**

**(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or state government; and**

**(e) To compromise or otherwise adjust all claims in favor of or against the Fund.**

***Section 9. Taxes and Expenses***

**All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.**

***Section 10. Annual Valuation***

**The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the Department a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the Department shall**

**constitute a conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.**

***Section 11. Advice of Counsel***

**The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any questions arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.**

***Section 12. Trustee Compensation***

**The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.**

***Section 13. Successor Trustee***

**The Trustee may resign or the Grantor may with the approval of the Department replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee acceptable to the Department and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a**

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**successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in writing sent to the Grantor, the Department and the present Trustee by certified mail 10 days before such change becomes effective.**

***Section 14. Instructions to the Trustee***

**All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Schedule B or such other designees as the Grantor may designate by amendment to Schedule B, and approved in writing by an authorized representative of the Department. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the Commissioner of the Department to the Trustee shall be in writing and signed by the Commissioner or his/her designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or the Commissioner hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or the Commissioner, except as provided for herein.**

***Section 15. Amendment of Agreement***

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**This Agreement may be amended by an instrument in writing executed jointly by the Grantor, the Trustee, and the Department, or by the Trustee and the Commissioner of the Department if the Grantor ceases to exist.**

***Section 16. Irrevocability and Termination***

**Subject to the right of the parties to amend this Agreement as provided in Section 15, this Trust shall be irrevocable and shall continue until terminated at the written direction of the Grantor and the Trustee, approved by the Department, or by the Trustee and the Commissioner of the Department, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor or, if the Grantor no longer exists, to the Department.**

***Section 17. Immunity and Indemnification***

**The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or Commissioner of the Department issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.**

***Section 18. Choice of Law***

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**This Agreement shall be administered, construed, and enforced according to the laws of the State of New Jersey, or the Comptroller of the Currency in the case of National Association banks.**

***Section 19. Interpretation***

**As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.**

***In Witness whereof*** **the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals (if applicable) to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this agreement is identical to the wording specified at N.J.A.C. 7:26-2A.9(j) as such regulations were constituted on the date first above written.**

**[Signature of Grantor]**

**[Name of the Grantor]**

**[Title]**

**Attest:**

**[Title]**

**[Seal]**

**[Signature of Trustee]**

**[Name of the Trustee]**

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**[Title]**

**Attest:**

**[Seal]**

**5. A line of credit required by (h)2 above shall:**

**i. Include the name and address of the owner or operator and name and address of the sanitary landfill to which the line of credit applies;**

**ii. Specify that the line of credit shall be issued for a period of at least one year, and shall be automatically extended for a period of at least one year;**

**iii. State that, if the issuer of the line of credit decides not to extend the line of credit beyond the then current expiration date, the issuer shall notify the owner or operator of the sanitary landfill and the Department by certified mail of a decision not to extend at least 120 days before the current expiration date. The 120 days shall begin on the date when both the owner or operator and the Department have received the notice as evidenced by the return receipts;**

**iv. State that the provider of the line of credit shall only disburse those funds from the line of credit that the Department approves in writing to be disbursed;**

**v. State that the funds in the line of credit shall be utilized solely for the purposes of conducting closure of the sanitary landfill; and**

**vi. State that the Department may access the line of credit to pay for the costs of closure of the sanitary landfill in the event that the owner or operator fails to perform closure or comply with the requirements of the approved Closure and Post-Closure Plan.**

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**6. A Certificate of Liability Insurance as required by (h)4 above shall be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:**

**CERTIFICATE OF LIABILITY INSURANCE**

**1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering damages or claims resulting from operations or closure of a sanitary landfill to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate liability insurance under N.J.A.C. 7:26-2A.9(h)4ii. The coverage applies at [Name and address of sanitary landfill]. The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's liability], exclusive of legal defense costs. The coverage is provided under policy number [number], issued on [date]. The effective date of said policy is [date].**

**2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:**

**(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.**

**(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer.**

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**(c) Whenever requested by the New Jersey Department of Environmental Protection, (the "Department"), the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.**

**(d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the sanitary landfill, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Department.**

**(e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of 30 days after a copy of such written notice is received by the Department.**

**I hereby certify that the wording of this instrument is identical to the wording specified in N.J.A.C. 7:26-2A.9(j) as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in New Jersey.**

**[Signature of authorized representative of Insurer]**

**[Type name]**

**[Title], Authorized Representative of [name of Insurer]**

**[Address of Representative]**

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# CHAPTER 26A

# RECYCLING RULES

## SUBCHAPTER 1. GENERAL PROVISIONS

### 7:26A-1.3 Definitions

The following words and terms, when used in this chapter, shall have the meanings set forth below. All terms which are used in this chapter and which are not defined herein but which are defined in N.J.A.C. 7:26 shall have the same meanings as in that chapter. If any of the words or terms defined below or at N.J.A.C. 7:26 are defined differently at N.J.A.C. 7:26A-13.2, the definitions at N.J.A.C. 7:26A-13.2 shall apply to the use of those words or terms in N.J.A.C. 7:26A-13.

...

[“Clean fill” means an uncontaminated nonwater-soluble, nondecomposable, inert solid such as concrete, glass and/or clay or ceramic products. Clean fill does not mean processed or unprocessed mixed construction and demolition debris including, but not limited to, wallboard, plastic, wood or metal. The nonwater soluble, nondecomposable inert products generated from an approved Class B recycling facility are considered clean fill.]

...

# CHAPTER 27

# AIR POLLUTION CONTROL

## SUBCHAPTER 7. SULFUR

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7:27-7.1 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

...

**"Hydrogen sulfide" means a colorless gas at standard conditions having a molecular composition of one sulfur atom and two hydrogen atoms.**

...

**7:27-7.3 Discharge of hydrogen sulfide from a sanitary landfill**

**No person shall cause, suffer, allow, or permit hydrogen sulfide to be emitted from a sanitary landfill, legacy landfill, or closed sanitary landfill facility, as defined in the Solid Waste rules at N.J.A.C. 7:26-1.4 and 2A.9(b), in a concentration greater than 30 parts per billion by volume (ppbv) averaged over any 30-minute period at or beyond the property line of the sanitary landfill.**

CHAPTER 27A

AIR ADMINISTRATIVE PROCEDURES AND PENALTIES

SUBCHAPTER 3. CIVIL ADMINISTRATIVE PENALTIES AND REQUESTS FOR ADJUDICATORY HEARINGS

7:27A-3.10 Civil administrative penalties for violation of rules adopted pursuant to the Act

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(a) - (*l*) (No change.)

(m) The violations of N.J.A.C. 7:27, whether the violation is minor or non-minor in accordance with (q) through (t) below, and the civil administrative penalty amounts for each violation are as set forth in the following Civil Administrative Penalty Schedule. The numbers of the following subsections correspond to the numbers of the corresponding subchapter in N.J.A.C. 7:27. The rule summaries for the requirements set forth in the Civil Administrative Penalty Schedule in this subsection are provided for informational purposes only and have no legal effect.

CIVIL ADMINISTRATIVE PENALTY SCHEDULE

1. – 4. (No change.)

5. The violations of N.J.A.C. 7:27-5, Prohibition of Air Pollution, and the civil administrative penalty amounts for each violation, per source, are as set forth in the following tables:

| Citation | Type of Violation | First Offense | Second Offense | Third Offense | Fourth and Each Subsequent Offense |
|---|---|---|---|---|---|
| N.J.A.C. 7:27-5.2(a), the emission of air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property | | | | | |
| Maximum Penalty Per Violation | NM | $10,000[7, 10] | $25,000 [7, 10] | $50,000 [7, 10] | $50,000[7, 10] |

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...

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[7] (No change.)

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9

(No change.)

**[10] Violations may also be subject to the implementation of a hydrogen sulfide monitoring system in accordance with the Solid Waste rules at N.J.A.C. 7:26-2A.7(h)10 and 2A.8(h)12.**

| Citation | Type of Violation | First Offense | Second Offense | Third Offense | Fourth and Each Subsequent Offense |
|---|---|---|---|---|---|
| N.J.A.C. 7:27-5.2(a), the emission of air contaminants in such quantities and duration as would unreasonably interfere with the enjoyment of life or property and which are not, or do not tend to be, injurious to health or welfare, animal or plant life or property | | | | | |
| Base Penalty Per Violation | NM | $1,000[1] 7, 10 | $2,000 [1] 7, 10 | $5,000 [1] 7 10 | $15,000 [1] 7, 10 |

i. (No change.)

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[7] (No change.)

[9] (No change.)

**[10] Violations may also be subject to the implementation of a hydrogen sulfide monitoring system in accordance with the Solid Waste rules at N.J.A.C. 7:26-2A.7(h)10 and 2A.8(h)12.**

6. (No change.)

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7. The violations of N.J.A.C. 7:27-7**.2** Control and Prohibition of Air Pollution from Sulfur compounds, and the civil administrative penalty amounts for each violation, per source, are as set forth in the following table:

...

| Citation | Class | Type of Violation | First Offense | Second Offense | Third Offense | Fourth and each Subsequent Offense |
|---|---|---|---|---|---|---|
| N.J.A.C. 7:27-7.2(d), (h)**,** and (j) | Records | M | $500 | $1,000 | $2,500 | $7,500 |
| ... | | | | | | |
| **N.J.A.C. 7:27-7.3** | **Monitoring** | **NM** | **$2,000[5]** | **$4,000[5]** | **$10,000[5]** | **$30,000[5]** |

[4] (No change.)

**[5] Violations may also be subject to the implementation of a hydrogen sulfide monitoring system in accordance with the Solid Waste rules at N.J.A.C. 7:26-2A.7(h)10 and 2A.8(h)12.**

8. – 34. (No change.)

(n) – (u) (No change.)