ENVIRONMENTAL PROTECTION

AIR QUALITY, ENERGY AND SUSTAINABILITY

Underground Storage Caverns

Proposed New Rules: N.J.A.C. 7:1F

Authorized By: Sean D. Moriarty, Deputy Commissioner, Department of Environmental Protection.

Authority: N.J.S.A. 13:1B-3, N.J.S.A. 13:1D-1 et seq., 13:1K-19 et seq., 26:2C-1 et seq., 58:10-

35.1 through 35.4, and 58:10A-1 et seq.

Calendar Reference: See Summary below for explanation of exception to calendar requirement. DEP Docket Number: 03-22-03.

Proposal Number: PRN 2022-060.

A public hearing concerning this notice of proposal will be held on June 9, 2022, at 10:00 A.M. The hearing will be conducted virtually through the Department of Environmental Protection's (Department) video conferencing software, Microsoft Teams. A link to the virtual public hearing and telephone call-in option will be provided on the Department's website at http://www.nj.gov/dep/rules/notices.html.

Submit comments by July 15, 2022, electronically at <u>https://www.nj.gov/dep/rules/comments/</u>. 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:

Melissa P. Abatemarco, Esq.
Attn: DEP Docket Number: 03-22-03
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

If you are interested in providing oral testimony at the virtual public hearing, please email the Department at <u>sonya.silcox@dep.nj.gov</u>, no later than 5:00 P.M. on June 7, 2022, with your contact information (name, organization, telephone number, and email address). You must provide a valid email address, so the Department can send you an email confirming receipt of your interest to testify orally at the hearing and provide you with a separate option for a telephone call-in line if you do not have access to a computer that can connect to Microsoft Teams. Please note that the hearing will be recorded. It is requested (but not required) that anyone providing oral testimony at the public hearing provide a copy of any prepared remarks to the Department through email.

This notice of proposal may be viewed or downloaded from the Department's website at https://www.nj.gov/dep/rules/.

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 requirement pursuant to N.J.A.C. 1:30-3.3(a)5.

The proposed Underground Storage Caverns rules, at N.J.A.C. 7:1F, implement N.J.S.A. 58:10-35.1 through 35.4 (Act). The Act states that no person shall construct or operate an underground storage cavern before obtaining a permit from the Department. Further, the Department may prescribe restrictions, as determined to be necessary in the public interest to protect the waters of the State, including subsurface and percolating waters. The Act states that every application for the permit must be accompanied by maps showing the location, extent, and depth of the proposed cavern and of all the wells to be drilled to it, which will be submitted to the State Geologist, who will advise the Commissioner of the Department (Commissioner) as to the presence or absence of the danger of pollution, contamination, diversion, or depletion of subsurface and percolating waters. The powers, duties, and functions of the State Geologist and the former Water Policy and Supply Council named in the Act have since been transferred to the Department (N.J.S.A. 13:1B-49.1). The Commissioner may take the testimony of such other persons as he or she may determine. Lastly, the Act directs the Commissioner to determine whether the granting of any such application would be likely to endanger the public safety, health, and welfare, and grant or deny the application. The proposed new rules establish

requirements for the owners and operators of underground storage cavern systems (system), in accordance with these provisions of the Act. In addition to its authority under the Act, the Department has authority under various environmental laws to protect the public health, safety, welfare, and natural resources of the State. See, for example, the Water Pollution Control Act, N.J.S.A. 58:10A-1, and the Toxic Catastrophe Prevention Act, N.J.S.A. 13:1K-19 et seq. The proposed rules are intended to continue these protections by ensuring sound construction, management, operation, maintenance, and decommissioning of any underground storage cavern system, thereby preventing the pollution, contamination, diversion, or depletion of subsurface and percolating waters, air, and other environmental media. The Department also has the general authority to enforce laws governing air pollution, water pollution, waste and refuse disposal, and other conservation and environmental protection requirements, N.J.S.A. 13:1D-9. The proposed rules are also designed to protect against releases of hazardous substances and to protect the State's waters, air, and natural resources, in accordance with the Department's general authority.

The proposed new rules will apply to systems that are used for the underground storage of any natural or artificial gas, or any petroleum product or derivative of any petroleum product, with the exception of liquefied natural gas (LNG), as discussed below, and will govern the construction, operation, modification, and decommissioning of the systems. Under the Act, a system is required to obtain a permit prior to construction, operation, and storage. The process to obtain a permit is contained in this rulemaking, as well as enforcement provisions for violations of the Act or the rules implementing the Act.

Underground storage areas, including excavated caverns, abandoned mines, salt domes, porous subsurface formations, and depleted oil and gas reservoirs, are utilized throughout the

country to store gases, liquids, petroleum products, and other materials. (U.S. Energy Information Administration web page. The Basics of Underground Natural Gas Storage. November 16, 2015. https://www.eia.gov/naturalgas/storage/basics/). In New Jersey, there are six excavated rock caverns that store liquefied petroleum gases, specifically propane and butane. These caverns were permitted by the Department, known then as the Department of Conservation and Economic Development, as authorized by the Act. Five of the caverns are in Linden and were constructed in 1957, at the Bayway Refinery, then owned by the Esso Standard Oil Company. The caverns received operation permits in 1959 for the storage of propane (two caverns) and butane (three caverns). These caverns still store the same products for which each was permitted. A sixth cavern was constructed between 1966 and 1968 in Gibbstown at what was then DuPont's Repauno works. It originally stored anhydrous ammonia. This cavern received its construction and operation permit in 1965. The Department issued a permit modification in 2016, to allow the cavern to be repurposed to store butane. While there is ongoing Department oversight with the existing permits at these facilities, these proposed rules establish regulations, considering current engineering practices and environmental conditions, to ensure that existing systems and any new cavern systems that are constructed will be operated and maintained in a manner protective of public health, safety, and the environment.

Stakeholder Engagement

On July 12, 2019, a stakeholder meeting was held at the Department's headquarters building in Trenton, NJ. A meeting invitation was sent to approximately 25 entities, in addition to the meeting being publicly posted on the Department's stakeholder workgroup and public

meeting schedule webpage (<u>https://www.nj.gov/dep/workgroups/</u>). Attendees included representatives from other State and local agencies, existing cavern facilities in New Jersey, and environmental and professional organizations. The Department sought some specific information and feedback from the attendees. The information exchanged during the meeting, and through follow-up correspondence helped guide development of the provisions proposed and described below.

The Department also distributed an informal, preliminary draft of the notice of proposal in the fall of 2020 to stakeholders that attended the July 2019 meeting for their review and feedback. The substantial comments received from the stakeholders helped Department staff to refine the rulemaking through consideration of concerns and issues raised, the undertaking of more research and review, and the addition of summary and rule language to clarify meaning and intent.

General Provisions

As stated at proposed N.J.A.C. 7:1F-1.1, proposed new N.J.A.C. 7:1F would constitute the Department's rules for the construction, operation, modification, and decommissioning of any underground storage cavern system in the State. The Department would liberally construe these rules to effectuate the purposes of the Act, which include the promotion of public health, safety, welfare, and the environment, stated at proposed N.J.A.C. 7:1F-1.2.

Proposed N.J.A.C. 7:1F-1.3 enumerates the Department's purposes for the new rules, including the establishment of the Department's underground storage cavern program to ensure that all underground storage cavern systems are constructed, operated, modified, and

decommissioned in a manner that will preserve the mechanical integrity of the underground storage cavern system, and minimize any potential threat to public health, safety, and the environment, including preventing the pollution, contamination, diversion, or depletion of subsurface and percolating waters, air, and other environmental media, and the implementation of the Act's technical and permitting requirements.

Pursuant to N.J.A.C. 7:1F-1.4, the Department proposes to require an owner and operator of an underground storage cavern system to ensure that any underground storage cavern system is constructed, operated, modified, and decommissioned, in accordance with the requirements at proposed new N.J.A.C. 7:1F. The "owner" and "operator," are proposed to be defined at N.J.A.C. 7:1F-1.6, as the person who owns a facility or person who has a legal or equitable title to a site containing a facility, and the person who leases, operates, controls, supervises, or has responsibility for, the daily operation of an underground storage cavern system, and each person who has the authority to operate, control, or supervise the daily operation of a system, respectively.

No underground storage cavern system subject to the requirements of this chapter would be constructed without approval, or operated without a permit, from the Department issued, pursuant to N.J.A.C. 7:1F-4, modified without an approval pursuant to N.J.A.C. 7:1F-5, or decommissioned without an approval pursuant to N.J.A.C. 7:1F-6. A permit issued by the Department pursuant to N.J.A.C. 7:1F-4 would only apply to a single regulated substance, as specified by the owner and operator in its permit application. The Department also proposes to consider liquid petroleum gas (LPG) a single regulated substance for the purposes of the proposed new rules (see Liquid Petroleum Gas (LPG) as the Regulated Substance). Last, the

storage of liquefied natural gas in an underground storage cavern system is not permitted under this chapter (see <u>Underground Storage of Liquefied Natural Gas</u>).

The Department proposes a severability clause at N.J.A.C. 7:1F-1.5

The proposed new rule, at N.J.A.C. 7:1F-1.6, includes definitions that are applicable to the construction, operation, maintenance, and decommissioning of an underground storage cavern system, including, but not limited to, "borehole," "casing," "facility," "feasibility study," "maximum allowable operating pressure," "maximum operating pressure," "mechanical integrity," "mechanical integrity test," "major modification," "minor modification," "natural or artificial gas' or 'gas,"" "regulated substance," "shaft," "'storage well' or 'well,"" "underground storage cavern' or 'cavern," "underground storage cavern system' or 'system," and "wellhead protection area."

The proposed definition of "'underground storage cavern,' or 'cavern,'" describes the underground area where a regulated substance may be stored, whereas, the proposed definition of "'underground storage cavern system,' or "'system'" includes the cavern and ancillary aboveand below-ground equipment. The equipment used for operations and defined as being part of the system include the wells used for injection and withdrawal activities, pipes, lines, tubes, and instrumentation up to, and including, the first emergency shutdown valve, adjacent maintenance valves, and the pressure relief valve(s). The Department also proposes to define "first emergency shutdown valve," at N.J.A.C. 7:1F-1.6, as the first actuated valve located on any penetration shaft that is used to inject into or withdraw the regulated substance from a cavern, where that valve is located downstream from the wellhead and prevents an uncontrolled release. For purposes of the proposed rules, any equipment beyond the underground cavern system will

not be considered part of the system, although activities that occur beyond the system may be governed by other existing authorities of the Department.

A critical component of the safe operation of an underground storage cavern system is the system's "mechanical integrity." The Department is proposing to define this term as the structural stability of a system under its maximum allowable operating pressure based on the geological characteristics of the cavern, the specifications of the system's ancillary equipment, and the properties of the regulated substance stored in the cavern. "Maximum allowable operating pressure" or "MAOP" is the maximum pressure at which a system is capable of maintaining its mechanical integrity. Equipment specifications include those for the system's ancillary equipment up to the first emergency shutdown valve, including storage wells, wellheads, pipes, lines, tubes, and instrumentation. A "mechanical integrity test" is a procedure by which the selected test pressure is used to determine if an underground storage cavern system is capable of storing a regulated substance under the system's maximum allowable operating pressure without compromising the system's structural stability.

The proposed new rules govern the storage of gases, petroleum products, and the derivatives of petroleum products. The Department is proposing separate definitions for "natural or artificial gas" or "gas," and "petroleum product and its derivatives." "Natural or artificial gas" or "gas" means any substance naturally occurring or synthetic, that exists in a gaseous state at standard temperature and pressure (32 degrees Fahrenheit and atmospheric pressure); and "petroleum product and its derivative" means any substance that is a complex mixture, natural or synthetic, of different hydrocarbons with small amounts of other substances. Under the proposed rules, petroleum products and their derivatives include methane, ethane, propane, butane,

gasoline, kerosene, fuel oil, synthetic oil, crude oil, and liquified petroleum gas (LPG). Because LPG is considered a subset of petroleum products, the Department is proposing to define it as any material in liquid form that is composed predominantly of any of the following hydrocarbons or a mixture thereof: propane, propylene, butane (normal butane or isobutane), and butylenes. Lastly, the Department is proposing a definition for "'regulated substance' or 'substance'" as a single term that refers to any gas or petroleum product and its derivative that is injected, withdrawn, stored, or proposed to be injected, withdrawn, or stored at an underground storage cavern system. As discussed above, LNG is proposed to be excluded from this definition.

Other terms defined at proposed N.J.A.C. 7:1F-1.6 are discussed in relevant parts of the Summary below. The new terms and definitions are used throughout the proposed new chapter.

Pursuant to proposed new N.J.A.C. 7:1F-1.7, any ordinance or regulation of any governing body of a municipality or county or board of health would not be superseded by the proposed new rules, and nothing in the chapter would preclude the right of any governing body of a municipality or county or board of health to adopt ordinances or regulations. Proposed N.J.A.C. 7:1F-1.8 provides the certifications that any person submitting an application, report, or other document pursuant to the proposed new rules would include with their submission. Proposed N.J.A.C. 7:1F-1.10 provides program information that includes contact information, and email and street addresses to which applications, forms, and correspondence would be submitted.

Liquid Petroleum Gas (LPG) as the Regulated Substance

The Department proposes, at N.J.A.C. 7:1F-1.4(d), that a substance meeting the definition of LPG would be considered a single regulated substance for the purposes of N.J.A.C.

7:1F-4. Accordingly, as permits will be issued authorizing the storage of a single regulated substance, as long as any different mixture meeting the definition of LPG is to be stored in the permitted system, a permit modification would not be required, as discussed further below. LPG is bought and sold in various mixtures of its components. Some of these mixtures are mostly propane and some mostly butane. The most common mixes include both propane and butane. These mixtures are classified as grades. There are three grades of LPG available as heating fuels: commercial-grade propane, engine fuel-grade propane (also known as HD-5 propane), and commercial-grade butane. In addition, there are high-purity grades of LPG available for laboratory work and for use as aerosol propellants. In the United States, mainly two grades of LPG are sold: commercial propane and HD-5. Butane is also stored and blended into gasoline. Commercial grade butane is commonly used, but a refinery-produced stream can be used as long as the blend specification is met. A refinery-produced stream is composed predominantly of normal butane and/or isobutane and may also contain propane and/or natural gasoline. These streams may also contain significant levels of olefins, also known as alkenes, which are hydrocarbons that feature one or more double bonds between two adjacent carbon atoms. Specifications for the various LPG grades are available and published from the American Society for Testing and Materials and the Gas Processors Association. The Association also publishes specifications for propane/butane blends.

As LPG is proposed to be considered a single regulated substance and, thus, the system permit authorizes any mixture or grade of LPG to be stored, the owner and operator must demonstrate and document that the underground cavern system design and construction is safe for any LPG grades that may be stored; the demonstration should include an evaluation of the

worst-case operating conditions for any grade of LPG. LPG components have similar physical properties, such as flammability and corrosivity. However, the substances' boiling points and vapor pressures differ. Therefore, various LPG grades will have different minimum and maximum operating temperatures and pressures, which the owner and operator must ensure are within the minimum and maximum design temperatures and the minimum design pressure and maximum allowable operating pressure for the cavern system. All documentation required by this chapter must be provided for the LPG grades to be handled. The documentation includes the feasibility study, design and construction specifications and plans, the process hazard analysis, mechanical integrity testing, the operation and maintenance plan, and the emergency response plan.

Underground Storage of Liquefied Natural Gas

The Act requires that any person conducting an operation for the purpose of obtaining access to an underground area for the storage of natural or artificial gas or petroleum products and their derivatives shall obtain a permit from the Department for such operation, construction, and storage. N.J.S.A. 58:10-35.1. The Act also states that any permit may contain such restrictions as the Commissioner determines necessary in the public interest to protect the waters of the State, including subsurface and percolating waters. N.J.S.A. 58:10-35.2. Thus, the Commissioner may determine it is necessary to prohibit the underground storage of certain materials in order to protect the waters of the State, whether due to the nature of the substance itself, the lack of feasible underground storage methods, or otherwise.

Accordingly, as explained below, the Department is proposing to exclude liquefied natural gas from the types of substances that may be stored in a cavern due to the lack of a safe and feasible underground storage method, as assessed by the New Jersey Geological and Water Survey. Given the findings of the Department's Geological and Water Survey, storage of LNG in a cavern would similarly be disallowed under the Department's risk assessments pursuant to the Toxic Catastrophe Prevention Act (TCPA), N.J.S.A. 13:1K-19 et seq., which applies to the storage of extraordinarily hazardous substances, such as LNG.

New Jersey Geological and Water Survey – Technical Feasibility Assessment

It is the finding of the Department's Geological and Water Survey that the storage of LNG in an underground cavern is not technically feasible at this time due to the effects of storing chilled LNG on the cavern's stability.

Natural gas is methane with small amounts of hydrocarbons, water, carbon dioxide, nitrogen, oxygen, and some sulfur compounds. When natural gas is cooled to minus 259 degrees Fahrenheit, it becomes an odorless and colorless liquid, referred to as LNG, and is about 1/600th of its previous volume. During the liquefication process, most of the associated compounds are removed. LNG is typically stored in insulated above- or in-ground tanks. The temperature within the tanks must be kept constant to minimize the amount of evaporation, and the pressure is kept stable by allowing the built-up vapors to escape from the tank. The vaporized gas can be collected and used as a fuel source. LNG, when vaporized, is flammable at concentrations of five to 15 percent in ambient air. LNG undergoes a re-gasification process when it is ready for utilization.

Storing LNG in underground caverns is challenging. Attempts to store LNG in an unlined underground cavern have not been successful. The biggest challenge is the prevention of leakage of gas and heat flux to the surrounding rock. Rock in unlined underground storage caverns becomes brittle when exposed to the extreme cold required for LNG storage. In 2017, the Ground Water Protection Council and Interstate Oil and Gas Compact Commission reported that "the geological and geomechanical integrity of the reservoir itself is also of primary concern" (Ground Water Protection Council and Interstate Oil and Gas Compact Commission. *Underground Gas Storage Regulatory Considerations: A Guide for State and Federal Regulatory Agencies*. May 2017.

https://www.gwpc.org/sites/gwpc/uploads/documents/publications/2017_GasStorageRegulatory Considerations_reduce.pdf). The thermal stresses of extremely low temperatures open existing, and generate new cracks in the surrounding rock, which can lead to failures of the underground storage cavern. Experiments with storing LNG in caverns in the U.S., U.K., and Finland have all failed due to "rock stability problems," which subsequently led to the release of LNG (Norwegian Tunneling Society Publication No. 16, *Underground Constructions For The Norwegian Oil And Gas Industry*. 2007. See Storage of Oil and Gas in Rock Caverns Below the Ground Water table-general design development, <u>https://tunnel.no/wp-</u> content/uploads/sites/3/2020/04/Publication-16.pdf).

A potential storage method for LNG is to place the cavern at depths of several thousand feet below ground. If the storage cavern is placed deep enough, underground storage failure can be prevented, as the geostatic pressure will offset the tensile stress induced by cooling. However, this concept would be very expensive in practice. The storage caverns currently in use

in New Jersey are at depths from 292 feet to 357 feet, with insufficient geostatic pressure to offset the impacts of cooling.

Another possible method for LNG underground storage is in a lined cavern with a sophisticated containment system, using a membrane containment system on the inside of the cavern and a drainage system to form an impervious layer of ice outside and around the cavern. This method was tested in Korea (Eui-Seob Park, So-Keul Chung, Dae-Hyuk Lee and Taek-Gon Kim (October 2012). *Innovative Method of LNG Storage in Underground Lined Rock Caverns, Natural Gas - Extraction to End Use*, Sreenath Borra Gupta, IntechOpen.

https://www.intechopen.com/chapters/40556). In the test, a horizontal shaft in the side of a mountain was lined with layers of concrete, plywood, an insulation panel approximately 300 millimeters thick, and a layer of stainless steel. The cavern was filled with liquid nitrogen at minus 321 degrees Fahrenheit and the area around the drainage system was allowed to freeze, thereby forming the layer of ice. The experiment ran for six months and was deemed successful. However, the feasibility of this approach has yet to be demonstrated in a commercially viable application.

Applicability of the Toxic Catastrophe Prevention Act (TCPA) - Safety Review Design, Process Hazard Analysis and Risk Assessment, and Inherently Safer Technology

With the goal of preventing potential catastrophic releases of extraordinarily hazardous substances (EHS) that could cause death or permanent disability to the public, the TCPA requires subject facilities to develop and implement a risk management program (RMP). A risk management program is a comprehensive safety program that includes elements, such as a safety

review of design for new and existing equipment, standard operating procedures, preventive maintenance, operator training, accident investigation, process hazard analysis/risk assessment, inherently safer technology review, management of change, compliance audits, and emergency response planning. N.J.A.C. 7:31-1.5. Considering natural gas is made predominantly of methane, which is an EHS, storage of LNG in New Jersey would be subject to the TCPA and require an RMP.

There are three distinct studies that the owner or operator must conduct to evaluate the safety, risk, design, and engineering of a new facility or a new covered process: "Safety Review of Design," "Process Hazard Analysis and Risk Assessment," and "Inherently Safer Technology Review." To satisfy the Safety Review of Design requirement, the owner or operator must document that the design of the covered process follows accepted design and operating standards as reflected in the process's engineering and design specifications.

A process hazard analysis (PHA) is a systematic study of engineering and design drawings and documents, standard operating procedures, and maintenance procedures. The study is performed by a multi-disciplinary team using various methodologies to identify hazards or operability problems that could result in an accidental release scenario.

In a risk assessment study, the owner or operator evaluates the release scenarios identified in the Process Hazard Analysis and conducts a quantitative analysis to facilitate development of an effective risk reduction plan.

In an Inherently Safer Technology Review, the owner or operator must evaluate principles or techniques that can be incorporated in a covered process to minimize or eliminate the potential for an EHS release, including:

- *Minimize*: reducing the amount of EHS material that potentially may be released;
- *Substitute*: substituting less hazardous materials;
- Moderate: using EHSs in the least hazardous process conditions or form; and
- *Simplify*: designing equipment and processes to minimize the potential for equipment failure and human error.

An owner or operator must also consider an alternate substance and/or an alternate process to determine the feasibility of not using an EHS or using less amounts. In its Inherently Safer Technology Review report, the owner or operator must document any Inherently Safer Technology that has been incorporated into the process, additional technology that has been identified, an implementation schedule for the selected technology to be implemented, any technology that has been determined to be infeasible, and a written explanation justifying the infeasibility determination for each inherently safer technology determined to be infeasible. N.J.A.C. 7:31-4.12.

The studies described above require an owner or operator to analyze a proposed process to ensure the process is feasible, safely designed, and incorporates feasible risk reduction measures to lower the risk of an accidental release as much as possible. If the owner or operator

cannot demonstrate that the process itself is feasible and safe, the Department would not grant approval for its construction and operation.

Given the geological, geomechanical, and engineering challenges to designing, storing, and maintaining an LNG storage cavern as noted above, the Department would not grant an approval pursuant to the TCPA rules for an underground LNG storage cavern based on the currently available information. Also, the design of experimental LNG underground storage caverns is greatly different from that of underground storage caverns for other substances, such as propane or butane. Thus, utilizing one of the existing underground storage caverns in New Jersey for LNG would not be feasible. For these reasons, the Department is proposing to exclude liquefied natural gas from the types of substances that may be stored in a cavern.

Construction of an Underground Storage Cavern

The Department is proposing to require the owner and operator of an underground storage cavern system to, prior to commencing construction, evaluate and provide, to the Department, comprehensive information detailing the feasibility of a proposed system, design specifications, and construction plans as part of its permit application. The Department proposes to define "construction," at N.J.A.C. 7:1F-1.6, as the drilling, boring, driving, digging, or otherwise conducting of any operation for the purpose of obtaining access to a pocket or other underground area to establish a new underground storage cavern as part of an underground storage cavern system, in addition to installing the infrastructure needed to operate the system. As described below, the owner and operator would also be required to submit with its permit

application a process hazard analysis and assessments of environmental, health, and climate change impacts.

Feasibility Study (N.J.A.C. 7:1F-2.1)

Under the proposed rules, an owner and operator of an underground storage cavern system must submit, to the Department, a feasibility study prior to construction of the system. A feasibility study is conducted to assess the suitability of a site for the construction and operation of a system. The study is based upon site-specific data regarding the local geology, hydrogeology, and any other above-ground and/or subsurface formations or structures.

The Department is proposing to require an owner and operator to submit assessments of: the location, capacity, dimensions, and depth of the proposed cavern; the location of any shaft or well already drilled, or proposed to be drilled; the geographical and geologic data; the identity and compatibility of the regulated substance, including the composition or chemical makeup of a mixture, to be stored within any part of the system; any well at the proposed site, including whether any abandoned well or wells have been properly decommissioned, in accordance with the Well Construction and Maintenance rules at N.J.A.C. 7:9D; any surface infrastructure or activities on-site; and applicable laws, rules, or regulations. The feasibility study for a proposed cavern would be required to evaluate the regional setting, property site, and cavern system's specific location to demonstrate that the most favorable conditions exist for operation in a manner that is protective of human safety, health, and the surrounding environment.

The Department proposes to require a feasibility study to be completed by a person experienced with the design and construction of an underground cavern system, and the concepts

of mechanical integrity. Further, the feasibility study would be certified by a licensed professional engineer.

For the purposes of this section and the feasibility study assessments, the Department proposes to incorporate the same definition for "abandoned well" as that provided in the Well Construction and Maintenance rules at N.J.A.C. 7:9D-1.5. The term is currently defined therein as "any well as defined in this section which is not in use, is not properly maintained, or no longer serves its intended use as demonstrated by the permit issued for its construction, or any well which endangers or threatens the subsurface and percolating waters by the intrusion of salt water or from any other cause, or endangers life." Incorporating the definition by crossreferencing it allows the Department to have an accurate and consistent meaning of the term, so that in the event amendments are made to the definition of abandoned well in the Well Construction and Maintenance rules, the same changes will apply to this section and rule chapter.

Design and Construction (N.J.A.C. 7:1F-2.2)

Under the proposed rules, an owner and operator of a system would be required to provide design specifications and construction plans to the Department as part of its permit application. The owner and operator would be required to submit design specifications that include an accurate map to scale that shows the location, dimensions, and depth of the proposed cavern, shafts, and wells. Further, the owner and operator would also be required to submit engineering design drawings of the system and calculations relied upon for design of the proposed system, in addition to any supporting documentation or reference materials used. Lastly, the owner and operator would be required to submit information regarding the

specifications of the equipment and materials to be installed as part of the system, such as the design specifications of casing materials to be used.

The owner and operator would be required to provide to the Department, the system's maximum allowable operating pressure, maximum and minimum design pressures, maximum and minimum design temperatures, and maximum and minimum operating pressures and temperatures. The Department proposes to define each of these terms, at N.J.A.C. 7:1F-1.6, as these are all critical parameters that must be specified for the safe design and operation of a system. A system's maximum allowable operating pressure is determined by subtracting the safety margin value from the selected test pressure in order to establish the maximum pressure at which the system is capable of maintaining its mechanical integrity. The maximum and minimum operating pressures are the maximum and minimum expected pressures of a regulated substance that is stored within the system during operation.

The owner and operator would be required to maintain and control all surface and mineral rights of privately owned land within 300 feet of the surface footprint of the cavern. The Department proposes to define "surface footprint," at N.J.A.C. 7:1F-1.6, as the area of land at a site that is located directly above an underground storage cavern.

The owner and operator of a system would also be required to submit to the Department corrosion control and dust management plans prior to commencing construction activities. The Department proposes to define "corrosion control," at N.J.A.C. 7:1F-1.6, as the prevention of the deterioration of any component of an underground storage cavern system by direct or electrochemical reaction with its environment. Corrosion control must be implemented during construction to prevent such deterioration and maintain the mechanical integrity of the system.

Dust management is a common best management practice that ensures that any off-site effects of dust from construction activities, particularly those from increased vehicle traffic, are minimized.

During construction activities, the owner and operator would be required to ensure that construction of the system and storage of any material related to construction, including any excavated material, is conducted or otherwise handled and addressed, in accordance with the Mine Safety Act (N.J.S.A. 34:6-98.1 through 34:6-98.18) and the Explosives Act (N.J.S.A. 21:1A-128 through 21:1A-144) and other local, State, and Federal law. Construction must also adhere to the design specifications approved by the Department. In the event construction deviates from the approved design, the owner and operator must provide notification and updated specifications for Department approval. Proposed additional requirements at N.J.A.C. 7:1F-2.2(c) pertain to various phases or parts of the system during construction, so the appropriate criteria for safety and emergency measures are considered and implemented.

Process Hazard Analysis (N.J.A.C. 7:1F-2.3)

The Department is proposing to require the owner and operator of the system to submit, to the Department, a process hazard analysis prior to construction of an underground storage cavern system and as part of its permit application. The purpose of the PHA is to systematically examine the proposed system (both design and operation) in order to identify, evaluate, and mitigate potential accidents. Different PHA methodologies can be used to predict the effects on the system from variations in conditions, such as temperatures, pressure, and composition of the regulated substance; as well as hazards, such as toxicity, corrosivity, and explosivity. The PHA methodologies permit identification of hazards before the regulated substance is handled at the

site. The results can then be incorporated into the design and operation of the facility. The proposed requirements would address two categories of facilities: facilities that will store an extraordinarily hazardous substance as defined pursuant to the TCPA Program rules at N.J.A.C. 7:31-1.5 and facilities that are not covered in the TCPA Program rules.

In order to fulfill the proposed submittal requirements, an owner and operator would be required to choose an appropriate methodology to: (1) conduct the PHA; (2) address the hazards of the cavern system; (3) ensure that the PHA is performed by a team with the proper expertise; (4) prepare schedules for completion in a timely manner; and (5) document all resolutions. These methodologies include "Checklist," "Failure Mode and Effects Analysis (FMEA)," "Fault Tree Analysis (FTA)," "Hazard and Operability Study (HAZOP)," and "What-if Analysis and Checklist." The Department proposes to define these methodologies, as adapted from the TCPA Program rules at N.J.A.C. 7:31-1.5, at N.J.A.C. 7:1F-1.6.

An owner or operator that stores an extraordinarily hazardous substance, as defined in the TCPA Program rules would also be required to perform a risk assessment pursuant to N.J.A.C. 7:31-4.2. A risk assessment quantifies the likelihood of a release and its consequences for the purpose of risk reduction. This rulemaking would require an owner and operator to identify, in its risk assessment, all scenarios of toxic, flammable, and reactive hazards that have a potential offsite impact for a specified endpoint using a consequence analysis, consisting of a dispersion analysis, thermal analysis, and overpressure analysis, as applicable to the substance and scenario. For each release scenario that has offsite impact, the owner and operator must determine the likelihood of release occurrence. If the release likelihood is greater or equal to 10⁻⁶ per year, the

owner and operator must perform an evaluation of risk reduction measures that would reduce the likelihood or consequence of a release.

Assessments of Environmental, Health, and Climate Change Impacts (N.J.A.C. 7:1F-2.4)

In addition to protection of the subsurface and percolating waters of the State, the Department must consider potential risks and impacts to the residents of the State, the surrounding community, and environment posed by a facility requesting a permit for an underground storage cavern system. Therefore, the Department is proposing to require an owner and operator of a proposed underground storage cavern system to include an Environmental and Health Impact Statement (EHIS) with its permit application. Under the proposed definition at N.J.A.C. 7:1F-1.6, an EHIS is: (1) a statement as to the realistically identifiable, probable impact of the underground storage cavern system upon the geology, soils, hydrology, air quality, ecology, land use, socioeconomic indicators, aesthetics, history, and archeology; (2) a listing of adverse environmental impacts that cannot be avoided; (3) a description of the steps to be taken to minimize adverse environmental impacts during construction and operation both at the project site and in the surrounding region; and (4) a reference list of pertinent published information relating to the project, the project site, and the surrounding region.

During the development of this proposed rule, the Department and stakeholders acknowledged the need to take into consideration the potential impacts a cavern system with a regulated substance can have on its surroundings, including the environment, public health, economics, and communities. The Department compared the proposed requirements for cavern systems to the existing permitting and regulatory oversight program for solid waste landfill

facilities and how the process gives broad consideration to numerous areas of impact through the EHIS. While the type of facilities and operations are different, the EHIS process is appropriate for the identification and mitigation of any unnecessary risks or unfavorable impacts posed by a proposed system to the environment or public health.

An EHIS is comprised of a detailed listing of information, by category, that becomes the environmental inventory. The Department proposes to define "environmental inventory," at N.J.A.C. 7:1F-1.6, as a detailed and comprehensive description of the condition of all environmental parameters as they exist at and around the site of a proposed action prior to implementation. The categories required for an environmental inventory include the cavern project's purpose, benefits, construction phases, operations after construction (specifically substance volume and handling), maps detailing important facility and site features, and impacts on transportation, and other key environmental considerations. Consideration must also be given to applicable Federal, State, or local land use and environmental requirements listed at N.J.A.C. 7:1F-2.4(b)7, with an indication of how the facility will conform or conflict with the applicable requirements. The Department is proposing to include, in the list of applicable State requirements, the regulations and guidance being developed pursuant to New Jersey's Executive Order No. 100 (2020), which directs the Department to take regulatory reform actions to reduce emissions and adapt to climate change.

The Department is proposing to require the owner and operator of a system to include an environmental assessment in its EHIS. The Department proposes to define "environmental assessment," at N.J.A.C. 7:1F-1.6, as an evaluation of the positive and negative changes to the environmental conditions at, and around, a particular site that may result from the

implementation of a proposed action. As defined, an environmental assessment includes a determination of the magnitude of the potential changes and, where applicable, the identification of recommended mitigative measures to be incorporated. Pursuant to this rulemaking, the environmental assessment must, at a minimum, have a detailed evaluation of a facility's potential impacts on all parameters identified in the environmental inventory. This description of impacts would include both positive and negative impacts to public health, the environment, and surrounding community, and would also consider direct or immediate impacts together with indirect or long-term impacts. The proposed evaluation would consider each phase of the cavern system project: site preparation, construction, operations, dormant status, and decommissioning. Details of the impacts can be provided using modeling techniques or maps to depict the impacts. If such methods are not applicable, professional judgement may be used and accompanied by the logical reasoning and assumptions used to predict the impacts. The assessment should quantify the identified impacts, wherever possible, or explain why an impact cannot be quantified. For instance, if a piece of below-surface ancillary equipment, such as a well seal or pump fails, what amount of regulated substance could be released before it is detected and corrected, and what is the amount of damage the release would have on potential nearby environmental receptors. Impacts should also be discussed qualitatively, describing generally the detriment or benefit to the parameters being impacted. Any techniques proposed as part of the cavern system project that would mitigate environmental impacts should also be described as part of the assessment.

The final component of the EHIS is an assessment of health impacts posed from a release of the regulated substance from a proposed cavern system. Health risk assessment methodology is utilized to evaluate the potential impacts, with descriptions of the reasoning and assumptions

used in the methodology and a listing of any reference materials used as part of the methodology. This methodology also examines uncertainties inherent to the assessment due to the estimation of certain factors or parameters, variation among circumstances related to any exposure to the substance, or other complex scenarios. The rulemaking would require the health assessment to include all substances that could potentially be released; the amounts, concentrations, and pathways of each substance; and a list of substances used to assess the health risks. The proposed assessment would require a substance toxicity profile(s) to be developed to describe the nature of the substance and discuss health effects (acute or chronic) from different levels of exposure to the substance if released into the environment. Potential health impacts should be quantified, when possible, or otherwise explained, and descriptions of mitigation techniques proposed to address any potential health impacts included.

The proposed EHIS would be required to have a summary section that discusses any potential adverse health or environmental impacts that cannot be avoided. The summary should describe the implications of the unavoidable, adverse impacts and reasons why the facility should be permitted. If the project includes mitigative equipment or techniques proposed to reduce the adverse impacts, the summary should discuss the effectiveness and cost of such measures.

The Department is also proposing to require a climate change impact assessment to be included with a permit application for the proposed new facility, or for permit renewals submitted pursuant to proposed N.J.A.C. 7:1F-4. Executive Order No. 100 (2020) (EO 100) requires that the Department integrate climate change considerations, such as sea level rise, into its regulatory and permitting programs, including, but not limited to, land use permitting, water supply, stormwater and wastewater permitting and planning, air quality, and solid waste and site

remediation permitting (see https://nj.gov/infobank/co/056murphy/pdf/EO-100.pdf). Similarly, Administrative Order 2020-01 (AO 2020-01) directs the Department to identify climate change and resiliency activities to be included in its planning efforts. The Department has determined that this proposed rule is appropriate for the incorporation of climate change considerations (paragraph 3 of AO 2020-01, see https://www.nj.gov/dep/njpact/docs/dep-ao-2020-01.pdf); the proposed climate change impact assessment for an underground storage cavern system would be the mechanism for owners and operators to evaluate and plan for climate change resiliency. The Department would accept a climate change impact assessment conducted pursuant to other Department regulatory or permitting programs provided the assessment addresses the items proposed at N.J.A.C. 7:1F-2.4(f).

Each climate change impact assessment will need to contain specific facility information, including the facility name, location, telephone numbers, email addresses, and a signed certification statement by the owner, operator, and if applicable, the person preparing the assessment. Under the proposed rule, an applicant would be required to evaluate certain listed scenarios using data and tools from the Department's Climate Change website at https://www.nj.gov/dep/climatechange. The website currently hosts substantial information on climate data, mitigations, and resiliency efforts that an owner and operator may refer to, such as the "2020 New Jersey Scientific Report on Climate Change" (see

<u>https://nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf</u>) all of which contain scientific information regarding climate change and data to assess how the facility might be affected by climate threats. Other current scientific resources may be used to inform a climate change impact assessment provided they are referenced in the written document.

At a minimum, the climate change impact assessment would include facility data on whether a cavern system is located within a flood hazard area. If it is not, the assessment should identify the distance to the closest flood hazard area together with a minimum depth flood waters would have to reach to potentially impact the cavern system. Other information and scenarios proposed to be included in the assessment are: 100-year storms, other extreme weather events, and the facility's proximity to sea level rise projections at approximate intervals of one, 2.5, four, and seven feet above the average sea level in the year 2000. The proposed approximate intervals of sea level rise correspond to the high end of projections for the years 2030, 2050, 2070, and 2100, as outlined in Table 4.3 of the 2020 New Jersey Scientific Report on Climate Change. Following the consideration and reporting of the flood hazard area and other scenario data and projections, the proposed assessment would include a written summary that evaluates the potential impacts to the cavern system, analyzes the risks posed, and evaluates health-related considerations that may result from any identified impacts or risks. The final component of the assessment would require the owner and operator to describe any ongoing, or future plans or resiliency measures anticipated to mitigate impacts related to climate change, including current and anticipated schedule(s) to complete the measures. It is important to note the provisions proposed at N.J.A.C. 7:1F-2.4(f), do not require an owner and operator to implement any measures described in the assessment. However, the Department believes the assessment process itself to be a valuable long-range awareness and planning tool that can be referenced to make resiliency improvements over time, as needed.

In the event the Department determines additional information is needed regarding the EHIS or climate change impact assessment, the new rule allows the Department to request the

applicant supplement the materials submitted in response to the requirements specified at N.J.A.C. 7:1F-2.4.

Third-Party Evaluation (N.J.A.C. 7:1F-2.5)

The Department is proposing to require that the owner and operator retain qualified outside technical expertise (third-party evaluator(s)) to independently review the feasibility study, cavern design, construction submittals, and process hazard analysis as part of the application process.

Under this section, the owner and operator must determine, and document, that the third party meets specified competency and independence requirements. This includes: demonstrating that the third party is knowledgeable about geologic formations and product attributes necessary for the review of the feasibility study and process hazard analysis; is experienced in design and construction of cavern systems; is impartial, and will not receive financial benefits from the outcome of its evaluation beyond that for the evaluation itself; did not conduct any work for the owner or operator within the past two years; and will not provide any business or consulting services to the owner or operator for at least two years following the submission of the evaluation. The Department is proposing to require that any third party and its personnel involved in the evaluation is required to sign a conflict of interest statement and shall not accept future employment with the owner or operator of the cavern system for at least two years following the submission of the evaluation. Performing or participating in a third-party evaluation does not constitute consulting or prior work conduct for the purpose of this independence requirement.

In addition, the Department is proposing to require the owner and operator to ensure that the third party manages the evaluation. This would entail participation in the initiation, design, implementation, and reporting, the determination of appropriate roles and responsibilities for the personnel involved in the evaluation, and preparation and certification of an evaluation report.

The proposed rule lists requirements for the contents of the third-party's evaluation report. The report must: identify all personnel of the third party participating in the evaluation; include an evaluation of each component of the required feasibility study; identify any design or construction deficiencies; identify any deficiencies with the process hazard analysis; describe, with specificity, the documents or materials reviewed and the review methods and calculations used; and include the certification required pursuant to N.J.A.C. 7:1F-1.8. Prior to any submission of any evaluation report, the owner and operator must submit documentation that the third party meets the competency and independence requirements as outlined at N.J.A.C. 7:1F-2.5(b). In accordance with N.J.A.C. 7:1F-4.2(d), the third party submits the evaluation report directly to the Department as a part of the permit application process to ensure the independence of the third-party evaluation.

Operation of an Underground Storage Cavern System

As-Built Specifications and Mechanical Integrity (N.J.A.C. 7:1F-3.1)

The proposed new rule provides that, following construction, and prior to beginning operation of the underground cavern system, the owner and operator must submit to the Department as-built specifications and mechanical integrity test results. The as-built specifications are an official record of the project at the time construction is completed. During

construction of the system, additions, deletions, and other changes are often made and the original designs, drawings, and specifications must be revised to show these changes, so that the final as-built condition of the system is provided. The Department is proposing this requirement because accurate, as-built specifications are critical to the operation and maintenance of the system and future modifications, particularly for parts of the system that are below-ground and not easily observed. The owner and operator must submit a map to the scale of the location of the system, as-built diagrams, and the geological conditions encountered during construction including, if applicable, any steps taken to stabilize the cavern system.

In addition, the owner and operator must conduct mechanical integrity tests on the system, prior to injecting a regulated substance, to ensure safe operation, and confirm the system's design. The proposed rule would require that such testing is performed on the completed cavern system and each penetration shaft. Secondly, an accurate measurement of the cavern's storage volume must be taken. Any information related to this testing that is submitted to the Department must be certified by a licensed professional engineer.

Operation and Maintenance (N.J.A.C. 7:1F-3.2)

The rulemaking would require that, prior to beginning operation, the owner and operator of an underground storage cavern system must submit to the Department a plan for the operation and maintenance of the system. An established fundamental of safe operation is the development of operating procedures. The proposed operating procedures include written instructions for initiation of operation, normal shutdown, normal operating conditions, abnormal operation, operation under temporary or special operating conditions, operation under emergency

conditions, and a description of safety systems and their functions. The operating procedures are a necessary reference for all personnel, should be readily available, and written in a format that is understood by all operators. Written and enforced operating procedures are necessary to ensure that a job is performed consistently and safely by all personnel.

In addition, the proposed rule requires an operation and maintenance plan to include procedures for air monitoring to detect any release of a regulated substance, for ground water and soil vapor monitoring in accordance with the proposed requirements at N.J.A.C. 7:1F-3.3, and for ensuring that the system is operated at all times within the maximum and minimum operating pressures and temperatures.

The purpose of the maintenance plan is to reduce accidents resulting from improperly maintained, tested, or inspected equipment. The maintenance plan not only covers preventive maintenance, but also repairs. Inspection, testing, and repair of equipment will reduce the likelihood of failures. The proposed rule requires the owner and operator to develop a plan for inspecting and testing ancillary equipment, corrosion control, inspecting and testing release detection and monitoring systems, repairs, and integrity testing of the cavern system every five years. With the exception of the five-year integrity test of the system, the proposed rule does not mandate specific inspection and test procedures and frequencies. Instead, the owner and operator is expected to comply with recommended and generally accepted good engineering practices and standards. Frequency intervals are proposed to be based on applicable manufacturers' recommendations and good engineering practices. Intervals may be increased or decreased with proper justification during the operating life of the facility depending on the condition of the equipment found during inspections.

Once the operation and maintenance plans proposed at N.J.A.C. 7:1F-3.2(a) are approved by the Department, the owner and operator are responsible for implementing the plans and any other conditions of the permit. Records demonstrating compliance with the operation and maintenance plans must be maintained by the owner and operator at the site for five years.

Ground Water and Soil Vapor Monitoring (N.J.A.C. 7:1F-3.3)

The proposed new rules would require ground water monitoring to: (1) observe ground water quality before and during cavern operation; (2) measure ground water levels before and during cavern operation; and (3) measure the volume of ground water removed before and during cavern construction and during cavern operation. Accordingly, the Department proposes to adopt, at N.J.A.C. 7:1F-1.6, the definition of "monitoring well" from the Well Construction and Maintenance; Sealing of Abandoned Wells rules at N.J.A.C. 7:9D-1.5. Soil vapor monitoring for the regulated substance In the unsaturated soil above the cavern is also proposed. These measures would provide protection for the water resources and residents of the State.

Observing ground water quality prior to construction activities will provide a baseline against which any later deviations can be measured. Changes in ground water quality after construction and operations begin may indicate if the regulated substance is being released from the cavern, and if potential chemical reactions of the regulated substance with other constituents in ground water are occurring. This rules would require quarterly measurements of water quality during operation.

The level of ground water above the cavern is an important component of the hydrostatic pressure, which helps contain the regulated substance in the cavern. If the ground water level

declines too much, for example due to less recharge during a drought or temporary dewatering during surface construction, the drop in hydrostatic pressure may allow a release of the regulated substance vertically upwards. Determining the necessary hydrostatic pressure and adjusting pressure inside the cavern if the hydrostatic pressure changes too much is made possible only by observation of the water level above the cavern. This rule would require continual monitoring of ground water levels with quarterly reporting.

The volume of ground water removed from the cavern, during either construction or operation, may create a region of depressed ground water levels that might impact other ground water users. Quantifying the volume of water removed is one way to determine if this is a concern. This rule requires accurate measurement of the volume of ground water withdrawn and quarterly reporting of those measurements. The flow measurements are required to be taken consistent with the requirements of the Department's Water Supply Allocation Permits rules at N.J.A.C. 7:19-2.14(4). Moreover, the rules at N.J.A.C. 7:19 require additional permits if withdrawal volumes exceed region-specific annual volumes.

In addition to ground water monitoring, the proposed rule would require soil vapor monitoring. If a regulated substance were to be released from a cavern it may migrate vertically upwards as a gas. In such a case, the substance would have to pass through the unsaturated soil before discharging to the atmosphere. A soil vapor monitoring system can detect such a release before discharge to the atmosphere. Installing this system is a preventative measure that better protects the residents of the State. This rule would require continual monitoring of soil vapor with reporting on a quarterly basis.

Emergency Response Plan (N.J.A.C. 7:1F-3.4)

The Department is proposing to require that, prior to beginning any operation, the owner and operator of an underground cavern system must develop, implement, and submit to the Department, an emergency response plan to protect public health and the environment. Because it is impossible to eliminate all likelihood of an accidental release, emergency response procedures are needed at the underground cavern site in order to reduce or mitigate the effects of a release on a surrounding community. The Department is proposing to adapt the emergency response plan currently required pursuant to the Toxic Catastrophe Prevention Act Program rules at N.J.A.C. 7:31. The items proposed to be required in the emergency response plan include procedures to inform the public, emergency response agencies, and the Department of accidental releases, as well as documentation of first aid and medical treatment. In addition, the plan would have to include procedures for emergency response, a list of properly maintained and available emergency equipment, and the process for reviewing and updating the emergency response plan, along with initial and refresher training.

The Department is proposing to require the owner and operator to include in the emergency response plan, procedures and measures to be implemented in the event of a catastrophic release, and to conduct initial and subsequent full-scale emergency response exercises, at least once every five years. A catastrophic release typically has a low probability of occurring, but could have significant consequences. Local emergency response agencies may not be equipped to provide the appropriate response for a catastrophic release scenario. Therefore, the owner and operator would need to prepare resources to handle this type of event.

Conducting a full-scale emergency response exercise prior to commencing operation would help the owner and operator identify gaps in the emergency response program.

Release Reporting, Suspected Releases, and Investigations (N.J.A.C. 7:1F-3.5)

As part of the operating requirements for an underground storage cavern system, the Department is proposing rule provisions that would require an owner and operator to take certain actions in the event a release is known to be occurring, there are indications of a suspected release, or the investigation of a suspected release confirms a release occurred. An owner and operator must immediately notify the Department and implement emergency response procedures in the event of a release. Regarding suspected releases, the Department is proposing to require an owner and operator to investigate the suspected release within seven calendar days. Proposed N.J.A.C. 7:1F-3.5(b) describes the indications of a suspected release and requires the owner and operator to investigate those indications within seven days to confirm whether a release occurred. The investigation of a suspected release shall be documented and made available for inspection by the Department. If an investigation confirms a release from the system, any person, which may be the owner or operator, employee, or any individual investigating a release, must immediately report it to the Department's emergency communications call center and include detailed information with the notification, as listed at proposed N.J.A.C. 7:1F-3.5(d)1 through 7. Following a release, the owner and operator must take immediate action to mitigate the release, conduct remediation activities, if needed, and investigate the release within 48 hours. A system that is subject to the TCPA Programs rules would be required to comply with the accident investigation requirements contained in the TCPA

rules. All other systems would be required to document the investigation in a report in accordance with proposed N.J.A.C. 7:1F-3.5(f). Records of investigation of a suspected release or release are to be maintained at the facility and available for Department inspection, as long as the cavern system is in operation.

Prohibitions (N.J.A.C. 7:1F-3.6)

Proposed N.J.A.C. 7:1F-3.6 specifies activities that would be prohibited during the operation of an underground storage cavern system. No person shall introduce a regulated substance into a system that is not permitted by the Department pursuant to proposed N.J.A.C. 7:1F-4, or where a permit has been revoked or denied. Also, as proposed at N.J.A.C. 7:1F-3.6(b) and (c), no owner or operator shall introduce a regulated substance into a system or continue to operate a system, or any of the associated ancillary equipment, that is known to be causing a release of a regulated substance or is not maintaining its mechanical integrity.

Recordkeeping (N.J.A.C. 7:1F-3.7)

The Department is proposing to require an owner and operator of an underground storage cavern system to maintain records, so they are immediately available and can be provided upon request. Specifically, an owner and operator must maintain at the site the records required pursuant to proposed N.J.A.C. 7:1F-2 and the as-built specifications and mechanical integrity records required pursuant to proposed N.J.A.C. 7:1F-3.1. Other records pertaining to operations and maintenance, ground water monitoring, the emergency response plan, and release reporting

and investigations are to be maintained at the site to document compliance with those provisions during the previous five years of operation.

Right of Entry (N.J.A.C. 7:1F-3.8)

The Department is proposing to require an owner and operator of an underground storage cavern system to allow entry by Department personnel to any site where a system, facility, or proposed system is located. For inspection purposes, the right of entry extends to facilities or areas where monitoring equipment or other records may be kept. The owner and operator would also be required to allow the Department to conduct digital recording related to the system or facility.

Permitting

The permit process proposed at N.J.A.C. 7:1F-4.1 requires Department approval through the permitting process described below, as well any construction permit and/or Department of Labor and Workforce Development approval, as applicable. The Department is proposing the owner and operator of an existing system renew its current permit within five years of the effective date of the proposed new rules. The existing system may continue to operate under the effective permit until the Department completes the review of the updated permit renewal application in accordance with proposed N.J.A.C. 7:1F-4.2(i) and (j).

Permit Applications (N.J.A.C. 7:1F-4.2)

Proposed N.J.A.C. 7:1F-4.2 specifies the required contents of the permit application and the Department's review process of the permit application from the owner and operator's initial application through the Department's final determination of whether the permit is approved or denied. The owner and operator would be required to submit a permit application to the Department and include: a feasibility study completed in accordance with proposed N.J.A.C. 7:1F-2.1; design specifications required pursuant to proposed N.J.A.C. 7:1F-2.2(a); the process hazard analysis required pursuant to proposed N.J.A.C. 7:1F-2.3; the assessments of environmental, health, and climate change impacts required pursuant to proposed N.J.A.C. 7:1F-2.4; and the documentation demonstrating the competency and independence of the third party conducting the evaluation of the application materials required pursuant to proposed N.J.A.C. 7:1F-2.5(b). Applications involving LPG as the regulated substance would include documentation on the proposed grade of LPG to be handled, as discussed in the General Provisions section above.

Under this rule, the Department will review the submitted application materials for administrative completeness. If the application contains the required documents and information, and is determined to be administratively complete, the Department, within 30 days of receipt of the application, will advise the applicant, in writing. If the application does not contain all documents and information required pursuant to proposed N.J.A.C. 7:1F-4.2(a) and (b), within 30 days of receipt of the application, the Department will advise the applicant, in writing, as to the additional information required to make the application administratively complete. The Department will advise the applicant of a due date for submitting the additional information required and may return the application. In the event an application is found to be

incomplete, the timeframes established for the Department's review will be stopped until all the documents and information are received.

After the Department declares that the application materials required at proposed N.J.A.C. 7:1F-4.2(a) and (b) are administratively complete, the Department is proposing to require the owner and operator to retain a third party in accordance with proposed N.J.A.C. 7:1F-2.5 to conduct and complete an evaluation report of the submitted application materials. The third party must submit its evaluation report directly to the Department for technical review. Within 180 days of receiving the third-party evaluation report, the Department will review the application materials and evaluation report. If the permit application materials and the evaluation report do not contain sufficient technical information or if the technical information requires clarification, the Department will advise the owner and operator, in writing, and provide a list of deficiencies and additional or clarifying information required to make the application complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department may extend the date by which the applicant must provide additional or clarifying information or deny the application pursuant to N.J.A.C. 7:1F-4.7. The third party must evaluate any changes to the materials submitted in accordance with N.J.A.C. 7:1F-4.2(b)1, 2, or 3, as appropriate. The third party must submit its additional evaluation to the Department. If the permit application materials required and the evaluation report contains sufficient technical information demonstrating compliance with the proposed requirements, the Department will prepare a draft approval to construct and bill the owner and operator for the associated review fees.

After the Department prepares the draft approval to construct, the Department will publish notice in the DEP Bulletin of the receipt of the permit application, and upon each significant action or determination the Department makes regarding an application under review. The notice will include the name of the owner and operator of the system, the permit application number, the location of the proposed system or facility, and the date and description of the Department's action or determination. The DEP Bulletin is available on the Department's website (https://www.nj.gov/dep/bulletin/) and contains a list of construction and permit applications recently filed or acted upon by the Department.

Upon publication of the notice in the DEP Bulletin of a draft approval to construct, the Department will hold a public hearing. The public hearing would provide an opportunity to review the facility's application, explain aspects of interest to the public and receive comments or inquiries for consideration in the permitting process. This proposed rule requires the public hearing after the Department receives and reviews the construction approval submittals from the applicant. Discussion topics for the public hearing would consist of the submitted documents, facility information, the general plans for operations, maintenance and emergencies, the Department's pending determinations for the draft construction approval and subsequent permit to operate, and any items raised by attendees of the hearing. A comment period would also be held open for a period of 30 days following publication of the notice in the DEP Bulletin, with an option for the Department to extend it for an additional 15 days. Upon completion of the comments that have been received, the Department would, under this rule, take one of the following actions: issue an approval to construct with any conditions it deems appropriate; require additional or

clarifying information from the owner and operator, if information received during the comment period necessitates substantial changes to the application or additional review by the Department; or deny the application pursuant to N.J.A.C. 7:1F-4.7. The Department's action would include response to comments received during either the public hearing or 30-day comment period.

Upon receipt of the Department's approval, the owner and operator may proceed with construction of the cavern system predicated on the owner and operator's receipt of any other construction permits or approvals required by other State or local agencies. However, the owner may not begin any operation activity of the cavern system until the owner and operator has submitted additional documentation to the Department and received an operating permit. Pursuant to proposed N.J.A.C. 7:1F-4.2(h), the required documentation would include: as-built specifications and mechanical integrity testing results, in accordance with proposed N.J.A.C. 7:1F-3.1; the operation and maintenance plan required at proposed N.J.A.C. 7:1F-3.2; the emergency response plan required at proposed N.J.A.C. 7:1F-3.4; the decommissioning plan required at proposed N.J.A.C. 7:1F-6; and payment of the fee for the approval to construct. The Department is proposing to conduct an administrative review of this submitted documentation. If the submittal does not contain all required documents and information, within 30 days of receipt of the application, the Department would either return the operation application or advise the applicant, in writing, as to the additional information required to make the application administratively complete. If an application is returned, the owner and operator would be advised, in writing, as to the additional information required to make the application complete. If the application contains all required documents and information and is determined to be

administratively complete, the Department, within 30 days of receipt of the application, would advise the owner and operator in writing.

After determining that the operation application materials are administratively complete, the Department is proposing to then conduct a technical review of the application materials within 90 days of that determination. If the materials do not contain sufficient technical information or if the technical information requires clarification, the Department would advise the owner and operator, in writing, and provide a list of deficiencies and additional or clarifying information required to make the application complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department could extend the date by which the applicant must provide additional or clarifying information or deny the application pursuant to N.J.A.C. 7:1F-4.7. If the materials contain sufficient technical information demonstrating compliance with the proposed requirements, the Department would issue a permit to operate with any conditions it deems appropriate and publish notice in the DEP Bulletin. If there is any change or update to the information submitted prior to the Department's approved permit to operate, the owner and operator of the cavern system would be required to notify and submit the updated information to the Department.

Public Access to Permit Information (N.J.A.C. 7:1F-4.3)

Subject to the confidentiality provisions contained at Subchapter 8, discussed below, the Department is proposing that all completed permit application forms, as well as documented

information pertaining to the permit, are considered public records pursuant to N.J.S.A. 47:1A-1 et seq., except as set forth at N.J.A.C. 7:1D-3, Non-Public Records.

Availability of Permit (N.J.A.C. 7:1F-4.4)

The Department is proposing to require the owner and operator of an underground storage cavern system to make an approved permit available for inspection by any authorized local, State, or Federal representative. The owner and operator would be required to maintain one set of approved plans at the facility site during the course of the permitted activity and must make the approved plans available for inspection by any authorized local, State, or Federal representative.

Permit Expiration (N.J.A.C. 7:1F-4.5)

The Department is proposing that any permit issued pursuant to this chapter would expire after five years from the date of issuance, unless it is renewed pursuant to N.J.A.C. 7:1F-4.6. This is to ensure that the documentation associated with the permit, especially the operations and maintenance information, is kept current. Any permit issued pursuant to this chapter would expire if the activity authorized by the permit is not commenced within 12 months after the effective date of the permit.

Permit Renewal (N.J.A.C. 7:1F-4.6)

The Department is proposing to require the owner and operator of a system to submit, to the Department, no later than 120 days prior to the expiration date of a permit, the operation and

maintenance plan and emergency response plan, required at proposed N.J.A.C. 7:1F-3.2 and 3.4, respectively, and indicate to the Department any updates to the information required under those provisions since an application was last submitted. The Department would review the materials in accordance with proposed N.J.A.C. 7:1F-4.2(h), (i), and (j). In order to allow the facility to continue to operate while a permit renewal application is being processed, a current permit for which a complete renewal application is submitted to the Department 120 days prior to expiration date would remain in effect until the Department grants or denies the renewal application.

Grounds for Denial, Suspension, or Revocation of a Permit (N.J.A.C. 7:1F-4.7)

The proposed rule contains provisions under which the Department may deny a permit. The Department may deny the issuance of a permit under this chapter if the permit application is incomplete; contains false, inaccurate, or insufficient information; or is illegible. Failure of the owner or operator of an underground storage cavern system to comply with any requirement of the Act or this chapter may also result in the Department denying issuance of a permit.

Permit suspension is also available to the Department pursuant to this section of the proposed rules. If an owner or operator of a system violates the permit, rule provisions of this chapter, or any statute, rule, or order of the Department, a permit may be suspended. Further, the falsification of any report, record, application, or permit requirement provided to the Department by the owner or operator may also be grounds for permit suspension.

Pursuant to this section, the Department may revoke a permit if the permit application contains false, inaccurate, or insufficient information; if an authorized representative is denied

access to the site; if the owner or operator of an underground storage cavern system fails to comply with any requirement of their permit, the Act, or this chapter; or if the owner or operator of a system is performing, or has authorized, an activity that is not in compliance with their permit or this chapter.

The Department would inform the owner and operator of an underground storage cavern of the denial of issuance, suspension, or revocation of a permit by notice. This notice would include the specific grounds for the denial of issuance, suspension, or revocation. The Department would provide the notice by certified mail or by personal service. The owner and operator of a system that receives notice from the Department denying issuance of, suspending, or revoking a permit cannot begin any activity proposed in its permit application nor continue any ongoing permitted activity.

A provision to appeal decisions by the Department is also proposed. An applicant who believes they are aggrieved by the Department's decision regarding any permit, permit condition, or application denial may contest the decision and request a contested case hearing pursuant to N.J.A.C. 7:1F-7.

Permit Transfer (N.J.A.C. 7:1F-4.8)

The last section of the permitting subchapter proposes requirements in circumstances when there is a change in ownership or operator(s) of a system. A new owner or operator may not begin control or operation of the system until written notification is provided to the Department. Acquiring ownership or taking on operations of the system represents substantial responsibilities, therefore, the new owner and operator must provide correspondence agreeing to

operate the system in accordance with this chapter, the facility permit, and the operating plans provided pursuant to N.J.A.C. 7:1F-4.2(h). To complete the transfer and adopt the existing system permit, a new owner and operator shall also submit the permit application form with the new owner and operator contact information and any other system records that require changes or updating (such as the financial responsibility). The Department will respond, in writing, to the new owner and operator acknowledging the change once a review of the submitted information is complete.

Modifications

After a cavern system is in operation, modifications to the process equipment and/or facility will likely be needed. It is important to ensure that any modifications are appropriately evaluated before a change is implemented to ensure that hazards are not inadvertently introduced into the operations. The Department is proposing to require the owner and operator of an underground storage cavern system to obtain approval from the Department prior to implementing a modification to the cavern system.

Definitions of "modify" or "modification," "minor modification," "major modification," and "repair" or "maintain" are proposed at N.J.A.C. 7:1F-1.6 to identify what is considered a modification pursuant to this chapter and to classify whether the modification is minor or major. "Modify" or "modification" is proposed to be defined as any change to the design or construction of an underground storage cavern system or change in the method of operation at the system that affects storage, injection, or withdrawal activities; this term does not include repairs or maintenance. "Repair" or "maintain" is proposed to be defined as the upkeep of an

underground storage cavern system, including the replacement of parts to ensure continued operation in accordance with the Department-approved design specifications of the system.

"Minor modification" means any change to the design or construction of an underground storage cavern system or change in the method of operation at the system that affects storage, injection, and/or withdrawal activities that is not a major modification. "Major modification" means a change to the regulated substance, or a change to the underground storage cavern system that affects the maximum and/or minimum operating temperatures and/or pressures.

Minor Modifications (N.J.A.C. 7:1F-5.1)

A minor modification is any change, that is not maintenance or repair, to the design or construction of an underground storage cavern system or a change in the method of operation at the system that affects storage, injection, or withdrawal activities. The term minor modification excludes a change to the regulated substance or a change to the underground storage cavern system that affects the maximum and/or minimum operating temperatures and/or pressures. As indicated above, any modification that has those potential impacts is classified as a major modification and is subject to the review discussed in Major Modification (N.J.A.C. 7:1F-5.2) below.

Prior to performing a minor modification, the owner and operator of the underground cavern system would submit, to the Department, any information related to the proposed modification to obtain approval from the Department. Within 30 days of receipt, the Department would conduct an administrative review of the submitted information, followed by a technical review within 90 days. If the information submitted is not sufficient, the Department would

notify the owner and operator to provide additional information, thus extending the review timeframes. If the resubmitted information is not sufficient, the Department will deny the application. If the required material is found to contain sufficient information, the Department will then review the modification request to determine if the technical information and changes conform with the protections and requirements of the Act and this chapter. Following the review, the Department would either issue an approval to modify with a notice published in the DEP Bulletin or deny the application.

Any records or documentation affected by the minor modification must be updated and all personnel must be trained appropriately. An owner and operator that handles a regulated substance under the Toxic Catastrophe Prevention Act (TCPA) rules is also required to comply with the TCPA "management of change" requirements.

Major Modification (N.J.A.C. 7:1F-5.2)

Under the proposed definitions, a major modification is a change to the regulated substance stored in a cavern or a change impacting the operating pressures or temperatures of the underground storage cavern system. The Department expects that a major modification will be less frequent than minor modifications. Because a major modification may have significant impacts to the cavern system, and, therefore, an increased chance of hazardous consequences, the proposed level of review and approval for a major modification is more extensive.

The major modification review and approval process is similar to what is proposed for a permit. Prior to performing a major modification, an owner and operator of a system would submit, to the Department, a written request, which includes an updated feasibility study,

updated design specifications, documentation demonstrating the competency and independence of the third-party reviewer, updated as-built specifications and mechanical integrity testing, an updated operation and maintenance plan, and an updated emergency response plan. The Department would conduct an administrative review within 30 days, and if the submission is found complete, the Department would notify the owner and operator to again retain the third party to conduct, and complete, an evaluation report, which the third party must submit directly to the Department. Within 180 days, the Department would review the submitted information and evaluation report. If the information submitted is not sufficient, the Department would advise the owner and operator of the deficiencies and/or need for clarifying information, and the owner and operator must submit the additional information within 30 days from receipt of the Department's correspondence. The requestor may receive an extension to provide the additional information; or, if the additional information is not submitted, the Department would deny the modification request. Once the information required is found to be sufficient, the Department would prepare a draft approval of the major modification, provide notice of the action in the DEP Bulletin, and hold a public hearing. After a 30-day comment period, the Department would either issue an approval with any conditions it deems appropriate, require additional or clarifying information, or deny the request.

Dormancy (N.J.A.C. 7:1F-5.3)

The life span of an underground storage cavern system could extend 50 or more years. During this period, any number of variable factors could impact the continued operation of the underground cavern system, or the owner or operator. The Department is concerned about

potential effects to the environment if the underground storage cavern system becomes inactive for a prolonged period of time. The proposed dormancy provisions address these concerns.

The Department proposes to define "dormancy," at N.J.A.C. 7:1F-1.6, as the period during which the regulated substance is withdrawn, and the system is temporarily empty, with the intent to inject and store a regulated substance in the future. Prior to placing the system into dormant status, the owner and operator would develop a plan for approval by the Department. The plan must provide for: ventilation and/or other cleaning procedures after the regulated substance is withdrawn to make the system inert to explosion and other hazards; procedures to ensure mechanical integrity is maintained; monitoring procedures for ground water, air, and temperature and pressure in the system; and the expected duration of the dormancy period. If the duration changes, the owner and operator must notify the Department of the change.

Decommissioning

A definition of "decommission" is proposed at N.J.A.C. 7:1F-1.6 to mean the total and complete withdrawal of any regulated substance from an underground storage cavern system, the sealing and/or removal of the system's ancillary equipment, and cessation of operation at the underground storage cavern system. The Department is proposing to require the owner and operator to provide a decommissioning plan prior to beginning operation of the system. This is intended to prevent any release to the air, or contamination to the surrounding soil or ground water from the regulated substance being stored at a future time when the owner and operator may decide to suspend or stop active operations.

The owner and operator of an underground storage cavern system must submit to the Department a decommissioning plan for approval that establishes a monitoring schedule and includes financial responsibility as proposed at N.J.A.C. 7:1F-6.2. The owner and operator must notify the Department 30 days prior to decommissioning and thoroughly ventilate or otherwise clean and seal the system in a manner acceptable to the Department after operation has ceased. If the owner and operator does not renew its permit within the time frame specified in this chapter, the Department will consider the system decommissioned and take steps to ensure that the owner and operator implements the decommissioning plan.

Financial Responsibility (N.J.A.C. 7:1F-6.2)

Part of the proposed permit application process for a cavern system includes providing a decommissioning plan that requires the owner or operator to demonstrate financial responsibility assurance. The Department proposes to define "financial responsibility assurance," at N.J.A.C. 7:1F-1.6, as the assurance of the availability of funds necessary for the decommissioning, maintenance, and monitoring of the underground storage cavern system. Prior to allowing a cavern system to begin operating, the Department wants to ensure there is sufficient monetary resources to properly decommission the system in the event the cavern system is no longer operating. The Department is not proposing financial responsibility requirements for remediation in the event of a release of the stored regulated (hazardous) substance; in such circumstances the requirements for financial responsibility pursuant to the Spill Act (N.J.S.A. 58:10-23.11(g)2) and the Discharges of Petroleum and Other Hazardous Substances Rules at N.J.A.C. 7:1E-1 would apply. Although either the owner or operator demonstrates financial

responsibility assurance, both the owner and operator are liable to ensure the financial responsibility requirements are in place.

An owner or operator will need to demonstrate financial responsibility assurance in the amount of at least one million dollars per permit through a financial test of self-insurance, a guarantee, insurance or risk retention group coverage, a surety bond, a letter of credit, or any combination thereof. The rule provides criteria for demonstrating compliance with each of the methods of financial responsibility assurance. In the event the owner or operator no longer meets the criteria requirements for a method of financial assurance, they must obtain alternative coverage.

Fees for an Underground Storage Cavern

In accordance with N.J.S.A. 58:10-35.1, the proposed rules establish a permitting framework for a facility owner and operator seeking to construct and operate an underground storage cavern system. The rules are necessary for the Department to carry out its responsibilities to protect the waters of the State and the public health, safety, welfare, and the environment from a release of a regulated substance and potential hazards that could result from a release. See, for example, N.J.S.A. 13:1K-19 et seq., 58:10-35.1 et seq., and 58:10A-1 et seq. In order to implement the proposed permitting framework, the Department is proposing to assess fees for cavern system permits, modifications, decommissioning, and compliance monitoring. The fees are necessary for the Department to effectively implement the proposed permitting program and are based on the hourly rate and time required of the Department staff conducting the review or inspection. The hourly rate proposed at N.J.A.C. 7:1F-1.9(c) is calculated using a

methodology similar to the methodology used by other Department programs (see generally N.J.A.C. 7:26G-3.3(g), Fee schedule for hazardous waste facilities, generators, and transporters). For the Chemical Safety Engineer in the Department's Bureau of Release Prevention and Supervising Geologist required for these reviews and inspections, the proposed hourly rate is calculated as \$140.00 per hour for fiscal year (FY) 2022. This hourly rate is rounded down to the nearest five dollars and is calculated as follows:

Hourly Rate = (AS+FB+IC+OE)/BH

Where:

AS = The average annual salary of the direct program staff assigned. For FY 2022, the Chemical Safety Engineer title salary range is between \$81,310 and \$115,958 and the Supervising Geologist title salary range is between \$77,643 and \$110,644. This results in an average salary of \$96,389.

FB = The average fringe benefits for an employee is calculated as a percentage of the average salary. The New Jersey Department of the Treasury sets the percentage annually, based on costs associated with pensions, health benefits, workers compensation, disability benefits, unused sick leave, and the employer's share of the Federal Income Compensation Act (FICA) contribution. In FY 2022, the provisional fringe rate is 53.25 percent. Therefore, average fringe benefits is 0.5325 times \$96,389, which equals \$51,327.

IC = The indirect costs; those costs incurred for a common or joint purpose, benefiting more than one objective and not readily assignable to the cost objective specifically benefited without effort disproportionate to the result achieved. Indirect costs consist of Department management salaries and operating expenses, divisional indirect salaries and related expenses

(personnel, fiscal, and general support staff), building rent, and the Department allocation of indirect costs listed in the Statewide Allocation Plan prepared annually by the State Department of the Treasury. Indirect costs do not include the salaries for division overhead staff and direct support personnel. The Department proposes to calculate the IC using the Indirect Cost Rate negotiated annually between the Department and the United States Environmental Protection Agency for purposes of Federal grant funding. To calculate the IC, the current negotiated rate is multiplied by the sum of AS and FB. For FY 2022, the indirect rate is 19.9 percent. Therefore, the indirect cost is 0.199 times the sum of the average salary and the fringe benefits, which equals \$29,395.

OE = The average operational expenses attributable to an employee. Operating expenses include costs incurred in connection with the program for such items as postage, telephone, training, travel, supplies, equipment maintenance, vehicle maintenance, data system management (internal systems, such as the New Jersey Environmental Management System (NJEMS) and external mainframe applications through the Office of Information Technology), and legal services. Average operational expenses per employee are calculated using the estimated FY 2022 spending plan for TCPA and the current staffing. The estimated operating expenses for the TCPA program in the FY 2022 spending plan is \$199,000. In FY 2022, the TCPA program has eight staff, consisting of five current Chemical Safety Engineers, one vacant Chemical Engineer position, one Section Chief position, and one vacant Environmental Engineer. The average operational expense is calculated as \$199,000 divided by eight, which equals \$24,875.

BH = The billable hours, which is the average number of hours each direct program staff position spends annually performing activities for which fees are assessed. This number is

determined by starting with the total number of days in the calendar year, 365. Then weekends and holidays are subtracted. This figure is further reduced by subtracting days for the average amount of used employee leave time (vacation, sick, and administrative leave days). Finally, the figure is adjusted by subtracting days for training and other non-billable staff time (such as medical surveillance, time sheet preparation, staff meetings, and other general functions). This results in 204 working days annually that can be allocated to specific objectives. 204 days multiplied by seven hours per workday equals 1,428 billable hours.

Proposed N.J.A.C. 7:1F-1.9(f) requires the Department to calculate the actual cost of permitting or inspecting an underground storage cavern system by tracking the number of hours (determined from time coding or workload analysis) required by the assigned Chemical Safety Engineer in the Bureau of Release Prevention and by the Supervising Geologist. The number of hours will be multiplied by the hourly rate and billed to the applicant prior to the Department issuing the written determination for the review activity.

The proposed rule also sets the maximum fee amounts that may be charged for permit reviews and related approvals. These maximum fees have been calculated using the hourly rate described above, the maximum allotted time frame for the Department's processing, review, and approval, and the assumption of one Chemical Safety Engineer working solely on the activity with the support of a Supervising Geologist for the entirety of that time frame. However, it is not likely that the Chemical Safety Engineer/Supervising Geologist would spend the maximum time frame working on the specified permitting activity, so it is expected that the actual fees that will be charged will be less than the stated maximum. The proposed maximum fees for permit reviews are detailed at N.J.A.C. 7:1F-1.9(d), but in general, would not exceed three established

amounts based on Department review time frames: \$16,500 for activities to be conducted within 30 days, such as the administrative reviews of applications, renewals, modifications, or dormancy plans; \$49,300 for 90-day technical reviews for operating permits, permit renewals, or minor modifications; or \$98,600 for 180-day technical reviews of construction and major modification approvals. The amounts were determined using the following equation (example is for the 30-day review time frame): (30 days) x (1 year/365 days) x (1,428 billable hours/year) x (\$140/hour), rounding up to the nearest hundred.

In addition to the proposed fees described above for permit review and related approvals, for an underground storage cavern system that does not handle a regulated extraordinarily hazardous substance at, or above, the specified threshold quantity under the Toxic Catastrophe Prevention Act Program rules at N.J.A.C. 7:31, the Department is proposing at N.J.A.C. 7:1F-1.9(e) to assess fees for conducting inspections and compliance reviews, such as reviewing quarterly monitoring reports pursuant to N.J.A.C. 7:1F-3.3. The Department will calculate these fees by tracking the hours spent performing the inspection or compliance review and multiplying that value by the hourly rate proposed at N.J.A.C. 7:1F-1.9(c). See proposed N.J.A.C. 7:1F-1.9(f).

As discussed above, the Department proposes establishing set monetary amounts for the hourly rate and maximum fees at N.J.A.C. 7:1F-1.9(c) through (h). At proposed N.J.A.C. 7:1F-1.9(i), the Department proposes to adjust these amounts each fiscal year, using current values for average annual salary, average fringe benefits, indirect costs, and average operational expenses. Therefore, the hourly rate and maximum fee amounts would vary each fiscal year. It is likely they will increase over time due to inflation of salaries and operating expenses. The adjusted

fees would be reflected through a notice of administrative change, published in the New Jersey Register.

Violations, Remedies, and Adjudicatory Hearing Procedures

The Act requires the Department to prescribe rules to effectuate the provisions of the Act and authorizes the Department to impose restrictions that it determines are necessary in the public interest to protect the waters of the State. N.J.S.A. 58:10-35.2. N.J.A.C. 7:1F-7 establishes procedures for enforcement actions that may be taken for violations of the underground storage cavern rules, and for violations of permits or orders issued pursuant to the rules. The Act provides that any person who violates the Act commits a crime in the fourth degree, previously a misdemeanor. *Ibid.* See N.J.S.A. 2C:1-4 and 2C:1-43.1. Moreover, the Act and its implementing rules are enforceable by action in the Superior Court to obtain injunctive relief. N.J.S.A. 58:10-35.2.

The proposed rules include provisions for the issuance of an administrative order to effectuate the Act. N.J.S.A. 58:10-35.2.

As described at N.J.A.C. 7:1F-7.1(a), the Department may deny, suspend, or revoke a permit, and may order an owner, operator, or other person to comply with the Act, the rules, a permit, or an order issued pursuant to the rules. The grounds for suspension or revocation are set forth at N.J.A.C. 7:1F-4.7 and include violation of a permit, the provisions under this chapter, or any statute, rule, or order of the Department. Further, the falsification of any report, record, application, or permit requirement provided to the Department by the owner or operator, or denial of access to a site may be grounds for permit suspension or revocation. Serious or

repeated violations may result in suspension or revocation of a permit. Procedures are established for issuing administrative orders. Proposed N.J.A.C. 7:1F-7 also provides an owner or operator the opportunity to request a hearing to contest a denial, suspension, or revocation of a permit or approval or an administrative order. Procedures outlining the hearing request process are provided at proposed N.J.A.C. 7:1F-7.4. Lastly, proposed N.J.A.C. 7:1F-7.5 sets forth the process by which the Department may bring a civil action in Superior Court and the remedies it may seek.

Confidentiality

Subchapter 8 contains proposed rules for the management and disclosure of the information collected by the Department pursuant to this chapter. The Department program with primary oversight for implementation of these proposed rules is the TCPA Program and, therefore, the provisions for confidential information are consistent with the rules at N.J.A.C. 7:31-10. Likewise, the Department proposes similar provisions to assess a fee for confidentiality claims at N.J.A.C. 7:1F-1.9(h) that are also consistent with TCPA Program fees at N.J.A.C. 7:31-1.11A. Generally, the proposed subchapter outlines the applicability of the Open Public Records Act, N.J.S.A. 47:1A-1 et seq., the process to submit confidentiality claims, determining the outcome of such claims/petitions, how the Department, owner, operator, or authorized individuals are to maintain or use the information, and implications for wrongful access or disclosure.

Social Impact

The Department anticipates that the proposed new rules will have an overall positive social impact by requiring underground storage caverns to be designed, constructed, operated, and maintained in a manner that protects public health, safety, and welfare. The rules ensure reasonable and necessary standards for the regulation and management of underground storage caverns. The rules apply to cavern systems that are used for the underground storage of any natural or artificial gas, or any petroleum product or derivative of any petroleum product. Many of these substances are extremely toxic or flammable, which could impact the surrounding public, if involved in an incident. A release of a toxic substance could form a vapor cloud that may cause severe health effects, if inhaled. An incident with a flammable substance could result in a fire or explosion, which could impact the public by radiant heat or an overpressure wave. Implementation of these rules will reduce the risk of incidents of hazardous substances to the public, which will have a positive social impact.

Also, the proposed provisions for violations, remedies, and adjudicatory hearing procedures will have a positive social impact by encouraging compliance with the rules. Compliance with the rules reduces the risk of incidents associated with the handling of hazardous substances.

Economic Impact

The Department anticipates that the proposed new rules will have an economic impact on the regulated community and the Department. Currently, there are two existing facilities with underground storage cavern systems in the State. One of the facilities has five cavern systems, and the other facility has one cavern system. The Department is aware that one of these existing

facilities is considering construction of additional caverns. No other future projects are known at this time.

Owners and operators will incur costs during the stages in the life cycle of a system as a result of the proposed new rules. These stages include the approval for construction and permit to operate a new cavern system, obtaining an updated operating permit for the existing systems pursuant to these proposed rules at the two current facilities, and ongoing implementation costs to the facilities with cavern systems after the receipt of their operating permit. The costs to comply with the proposed requirements that go beyond the normal practices in the design, construction, operation, and maintenance of a cavern system for each of these cases have been evaluated. In addition to requiring current industry practices to ensure safe storage, operation, maintenance, and decommissioning of underground storage cavern systems, the Department is also proposing additional procedures to prevent accidental releases and to ensure that the system design, construction, operation, and security meet or exceed current engineering standards. These requirements include maintenance and control of surface and mineral rights within 300 feet of the surface footprint of the cavern; third-party audit; environmental and health impact statement; corrosion control and dust management plans; and continuous monitoring of product levels, storage temperature and pressure, and hydrostatic/hydrogeological conditions. Documentation of these items must be submitted for Department review and approval.

An owner and operator submitting an application for approval for construction and a permit to operate a new cavern system can expect one-time costs of preparing, implementing, and submitting a feasibility study, design and as-built specifications, a process hazard analysis, an environmental and health impact statement, a climate change impact assessment, a third-party

evaluation, ground water and soil vapor monitoring systems, mechanical integrity testing results, an operation and maintenance plan, an emergency response plan, and a decommissioning plan with financial responsibility assurance. The costs to comply with the proposed requirements that go beyond the normal practices in the design, construction, operation, and maintenance of a cavern system include the submission of an environmental and health impact statement (EHIS) and a climate change impact assessment. The Department solicited cost information from two engineering firms qualified in conducting an EHIS in New Jersey. Depending on the size, location, geology, number of potential receptors, and other factors of the proposed project, fulfilling the requirements of an EHIS, as detailed in the Summary, could range from \$250,000 to \$700,000, assuming that the engineering and hydrogeological investigations that will be a necessary basis for the EHIS will be performed as separate tasks and not as a part of the EHIS scope and budget. The cost of preparing a climate change impact assessment will also vary depending on the location of a proposed facility and who conducts and prepares the document. Considering the Department provides climate data, tools, and other resources on its website at no cost, the additional evaluation for climate change impacts is not considered burdensome when compared with the overall costs associated with constructing an underground storage cavern system.

After the receipt of its initial permit, the owner and operator will incur ongoing implementation costs that include fees for Department inspections, quarterly monitoring and reporting, a full-scale emergency response exercise every five years, and updates of the operation and maintenance plan and emergency response plan every five years for the permit renewal.

An owner and operator who submits materials for a new permit to operate a currently

existing cavern system can expect an initial cost of preparing, implementing, and submitting asbuilt specifications and integrity test results, as well as an operation and maintenance plan, an emergency response plan, and a decommissioning plan with financial responsibility assurance. The Department will incur costs for permit review and compliance and enforcement. The Department's proposed rules include permit fees, which are proposed specifically to reflect the Department's staff time for the review and processing of the permit or other required approvals, billed at an hourly rate, as explained in the Summary. Since the Department estimates two facilities will be subject to these proposed rules, no new State positions will be created for the various permit and enforcement activities. Instead, the Department will complete this work by redistributing routine tasks within the staff for the impacted program(s). Under this rulemaking, the review and processing fees paid to the Department by the owner or operator of a new system for approval to construct and the permit to operate will not exceed \$180,900 in 2022 dollars. The review and processing fees paid to the Department by the owner or operator of an existing system for a permit renewal will not exceed \$65,800 in 2022 dollars; this represents the maximum fee for the updated operating permit following the adoption of these proposed rules. The review and processing fees paid to the Department by the owner or operator for a minor modification of a permit for a cavern system will not exceed \$65,800 in 2022 dollars. The review and processing fees paid to the Department by the owner or operator for the major modification of a permit for a cavern system will not exceed \$115,100 in 2022 dollars. The review and processing fees paid to the Department by the owner or operator for a dormancy plan approval will not exceed \$16,500 in 2022 dollars. The actual fees that are assessed by the Department should be much less than these maximum fees, since these maximum fees have been

calculated with the assumption that the assigned Department staff is working full-time only on the specified permit activity during the whole review time period specified in the proposed rule.

Environmental Impact

The Department anticipates that the proposed new rules will have an overall positive environmental impact by requiring underground storage caverns to be designed, constructed, operated, and maintained in a manner that protects the environment. As described above, these rules apply to cavern systems that are used for the underground storage of any natural or artificial gas, or any petroleum product or derivative of any petroleum product, many of which are extremely toxic or flammable. Reducing the risk of an incident, accidental release, fire, or explosion, of a regulated substance will have the added benefit of reducing pollution to the air and waters of the State.

Also, the proposed new rules will have a positive environmental impact by preventing the pollution, contamination, diversion, or depletion of subsurface and percolating waters. The monitoring provisions will ensure that this protection is provided on an ongoing basis by indicating whether a regulated substance is leaking from the cavern. In addition, monitoring will ensure that the ground water level is adequate and does not decline too much, such as during times of less recharge or a drought. The ground water level is an important component in the design of a cavern; it is necessary to ensure that the hydrostatic pressure of the ground water is greater than the pressure within the cavern. This ensures that leaks through cracks or fissures of the cavern will be prevented.

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 Statement. The proposed new rules are not more stringent than Federal requirements because the Federal government does not have standards applicable to underground storage cavern systems. Therefore, no analysis is necessary.

Jobs Impact

The proposed new rules are not expected to have a significant impact on jobs at New Jersey's regulated facilities. It is anticipated that the rules will affect only two existing facilities. Owners and operators of those facilities are not expected to experience a loss of jobs due to the costs of applying for a new permit to operate. Although this expenditure may impact some types of jobs by diverting monetary resources towards program development, there is a likelihood that jobs will be created for those charged with program development and implementation. Because the proposed new rules are expected to have little or no job impact on the regulated community, they are not expected to have secondary or tertiary job impacts on other New Jersey businesses that may be customers of, or suppliers, to those facilities.

In addition, no impact on the number of jobs within the Department is expected as a result of the proposed new rules. Although the Department estimates two facilities will be subject to these proposed rules, no new State positions will be created to review and approve the various permit and enforcement activities. Rather, the Department will accomplish these tasks

by redistributing routine tasks within the program.

Agricultural Industry Impact

Pursuant to N.J.S.A. 52:14B-4, the Department has evaluated this rulemaking to determine the nature and extent of the impact of the proposed new rules on the agricultural industry. The proposed rules are anticipated to have minimal impact on agriculture in New Jersey.

Regulatory Flexibility Statement

In accordance with 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 that the proposed rules would impose on small businesses. As defined by the Regulatory Flexibility Act, a "small business" is one that is independently owned and operated and employs fewer than 100 full-time employees. It is expected that affected parties are not small businesses; therefore, no analysis is needed.

Housing Affordability Impact Analysis

In accordance with N.J.S.A. 52:14B-4, the Department has evaluated the proposed new rules to determine their impact, if any, on the affordability of housing. It is expected that these proposed new rules will have no impact on the affordability or average costs of housing in the State.

Smart Growth Development Impact Analysis

In accordance with N.J.S.A. 52:14B-4, the Department has evaluated the proposed new rules to determine their impact, if any, on housing production within Planning Areas 1 or 2, or within designated centers, under the State Development and Redevelopment Plan. The Department has evaluated this rulemaking and has determined that the nature and extent of the proposed new rules will have no impact on smart growth and the implementation of the State Plan.

Racial and Ethnic Community Criminal Justice and Public Safety Impact

The Department has evaluated this rulemaking and determined that it will not have an impact on pretrial detention, sentencing, probation, or parole policies concerning adults and juveniles in the State. Accordingly, no further analysis is required.

Full text of the proposed new rules follows:

CHAPTER 1F

UNDERGROUND STORAGE CAVERNS

SUBCHAPTER 1. GENERAL PROVISIONS

7:1F-1.1 Scope

This chapter shall constitute the rules of the Department for the construction, operation, modification, and decommissioning of any underground storage cavern system in the State.

7:1F-1.2 Construction

This chapter, being necessary to promote the public health, safety, welfare, and environment, shall be liberally construed to permit the Department to implement its statutory functions and to effectuate the purposes of N.J.S.A. 58:10-35.1 et seq.

7:1F-1.3 Purpose

(a) This chapter is promulgated for the following purposes:

1. To establish the Department's underground storage cavern program to ensure that all underground storage cavern systems are constructed, operated, modified, and decommissioned in a manner that will preserve the integrity of the underground storage cavern system, and minimize any potential threat to public health, safety, and the environment, including preventing the pollution, contamination, diversion, or depletion of subsurface and percolating waters, air, and other environmental media; and

2. To implement the technical and permitting requirements of the Act.

7:1F-1.4 Applicability

(a) This chapter applies to the construction, operation, modification, and decommissioning of underground storage cavern systems.

(b) The owner and operator of an underground storage cavern system shall ensure that any underground storage cavern system is constructed, operated, modified, and decommissioned in accordance with the requirements of this chapter.

(c) No underground storage cavern system subject to the requirements of this chapter shall be constructed without approval, or operated without a permit, from the Department issued pursuant to N.J.A.C. 7:1F-4, modified without an approval pursuant to N.J.A.C. 7:1F-5, or decommissioned without an approval pursuant to N.J.A.C. 7:1F-6.

(d) A permit issued by the Department pursuant to N.J.A.C. 7:1F-4 shall only apply to a single regulated substance, as specified by the owner and operator in its permit application. LPG shall be considered a single regulated substance.

(e) The storage of liquefied natural gas in an underground storage cavern system is not permitted pursuant to this chapter.

7:1F-1.5 Severability

If any section, subsection, provision, clause, or portion of this chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this chapter shall not be affected thereby.

7:1F-1.6 Definitions

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

"Abandoned well" has the same meaning as the term "abandoned well" as defined in the Well Construction and Maintenance rules at N.J.A.C. 7:9D-1.5.

"Act" means N.J.S.A. 58:10-35.1 et seq.

"Borehole" means a hole made by driving, jetting, coring, drilling, use of an auger, or other means into the ground for the purpose of constructing a shaft or well pursuant to this chapter.

"Casing" means a pipe or tubing installed into a borehole during or after drilling to support the sides of the hole and prevent caving or the entrance of water, gas, or other fluid into the hole.

"Checklist" means a systematic study of updated engineering design drawings that describe the cavern system, taking into consideration process chemistry, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The study uses a written list of items to verify the status of a cavern system. Checklists are created by organizing information from current relevant codes, standards, regulations, and good engineering practice documents. The checklist is completed with "yes," "no," "not applicable," or "needs more information" answers to the questions. Results of the study are reported on a table as follows: each checklist item and its corresponding consequence/hazard, the criticality based on the quantity or rate of the potential release, existing safeguards in place, and the recommended action in terms of equipment or procedure to mitigate the consequence/hazard.

"Construction" means the drilling, boring, driving, digging, or otherwise conducting of any operation for the purpose of obtaining access to a pocket or other underground area to establish a new underground storage cavern as part of an underground storage cavern system, in addition to, installing the infrastructure needed to operate the system.

"Corrosion control" means the prevention of the deterioration of any component of an underground storage cavern system by direct or electrochemical reaction with its environment.

"Decommission" means the complete withdrawal of any regulated substance, to the greatest feasible extent, from an underground storage cavern system, the sealing and/or removal of the system's ancillary equipment, and the cessation of operation at the underground storage cavern system.

"Department" means the Department of Environmental Protection.

"Dormancy" means a period during which a permitted regulated substance is withdrawn and an underground storage cavern system is temporarily empty with the intent to inject and store the permitted regulated substance in the future.

"Environmental and Health Impact Statement" or "EHIS" means a statement as to the realistically identifiable, probable impact of the underground storage cavern system upon the geology, soils, hydrology, air quality, ecology, land use, socioeconomic factors, aesthetics, history, and archeology of the site upon which construction of the system is contemplated; a listing of adverse environmental impacts that cannot be avoided; a description of the steps to be taken to minimize adverse environmental impacts during construction and operation of the system, both at the project site and in the surrounding region; and a reference list of pertinent published information relating to the project, the project site, and the surrounding region.

"Environmental assessment" means an evaluation of the positive and negative changes to the environmental conditions at and around a particular site that may result from the implementation of a proposed action. Included in an "environmental assessment" is a determination of the magnitude of the potential changes and, where applicable, the identification of recommended mitigative measures to be incorporated.

"Environmental inventory" means a detailed and comprehensive description of the condition of all environmental parameters as they exist at and around the site of a proposed action prior to implementation of the proposed action. This description is used as a baseline for assessing the environmental impacts of a proposed action.

"Facility" means one or more underground storage cavern system(s) owned or operated by one person on a single property site or on contiguous property sites.

"Failure Mode and Effects Analysis" or "FMEA" means a specifically designed method to identify the conceivable ways that equipment, or its components, can fail and the effect of the failure on the cavern system with respect to a release of the regulated substance. The failure and effects are determined in a study of updated engineering design drawings that describe the cavern system taking into consideration chemistry, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The resulting qualitative analysis are translated into a quantitative FMEA in which probabilities of the failure of components are assigned. The results of the FMEA for each equipment or component of the system are reported for the cavern system on an FMEA table for each equipment item or component studied as follows: the identification number of the item, the name of the item, entries of failure modes of the item, and for each entry of failure mode, the other equipment potentially affected with the equipment identification number and the effect of the failure on that equipment, a classification of the criticality ranking of the failure based on quantity or rate of the potential release, the probability of the failure and the suggested action in terms of equipment or procedure to prevent the failure or to mitigate the results of the failure.

"Fault Tree Analysis" or "FTA" means an analysis of the logic diagram constructed from a study of the updated engineering design drawings describing the system taking into consideration chemistry of the regulated substance, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The logic diagram contains the conceivable human or mechanical event sequences that could result in a release. The logic diagram represents a qualitative analysis of the hazards. Results of the FTA are reported for the cavern system on a table that includes the descriptions of the various combinations of equipment or procedural failures that can lead to a release of the regulated substance. The combinations are determined by solving the fault tree logic diagram to identify the minimal cut sets, that is, the smallest combination of equipment or procedural failures, which, if all occur, will result in the "top event," or the substance release. The table includes a criticality ranking based on the quantity or rate of the potential substance release, a probability for the respective failures, and the suggested action in terms of equipment or procedure to prevent the failure or to mitigate the results of the failure. Probabilities are assigned to each element of the event sequence to obtain a quantitative fault tree that gives the probability or frequency of occurrence of the release.

"Feasibility study" means a study conducted to assess the suitability of a site for the construction and operation of an underground storage cavern system based upon the site's geology, hydrogeology, above- and below-ground formations or structures, and the regulated substance to be stored at the system.

"Financial responsibility assurance" means the assurance, through one or more allowable mechanisms pursuant to N.J.A.C. 7:1F-6.2, of the availability of funds necessary for the decommissioning, maintenance, and monitoring of the underground storage cavern system.

"First emergency shutdown valve" or "First ESV" means the first actuated valve located on any penetration shaft that is used to inject into, or withdraw the regulated substance from, a cavern, where that valve is located downstream from the wellhead and prevents an uncontrolled release.

"Hazard and Operability Study" or "HAZOP" means a systematic study of updated engineering design drawings that describe the cavern system taking into consideration process chemistry, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The study is performed by a multi-disciplinary team to identify hazard or operability problems that would result in an accident. Deviations from the design value of key parameters (flow, temperature, composition, time, quantity, etc.) of each segment of the covered process and its procedures are studied using guide words (such as, more of, less of, none of, part of, more than, and other) to control the examination and evaluation. Results of the HAZOP study are reported by tabulation for a unit by key equipment and process parameters. The results are entered on the table as follows: guide word, causes of the deviation, consequences of the deviation in terms of a potential substance release, the criticality based on the quantity or rate of potential release, and the suggested action in terms of equipment or procedure to mitigate the deviation.

"Liquefied natural gas" or "LNG" means methane with small amounts of hydrocarbons, water, carbon dioxide, nitrogen, oxygen, and some sulfur compounds that have been cooled to minus 259 degrees Fahrenheit and is in a liquid state.

"Liquefied petroleum gas" or "LPG" means any material in liquid form that is composed predominantly of any of the following hydrocarbons or a mixture thereof: propane, propylene, butanes (normal butane or isobutane), and butylenes.

"Major modification" means a change to the regulated substance, or a change to the underground storage cavern system that affects the maximum and/or minimum operating temperatures and/or pressures.

"Maximum allowable operating pressure" or "MAOP" means the maximum pressure of the regulated substance at which an underground storage cavern system is capable of maintaining its mechanical integrity. The maximum allowable operating pressure of any system is the test pressure minus the safety margin.

"Maximum design pressure" or "MDP" means the highest pressure at which a pressure test of the cavern may be conducted to verify the integrity of the cavern system. The MDP is the minimum calculated hydrostatic pressure at the highest point of the cavern, in pounds per square inch gauge (psig), minus 29 psig.

"Maximum design temperature" means the maximum temperature of the regulated substance at which an underground storage cavern system is capable of maintaining its mechanical integrity.

"Maximum operating pressure" means the maximum pressure of the regulated substance that is expected during operation. The maximum operating pressure must be less than the MAOP.

"Maximum operating temperature" means the maximum temperature of the regulated substance that is expected during operation.

"Mechanical integrity" means the structural stability of an underground storage cavern system under maximum allowable operating pressure based on the geological characteristics of the cavern, the equipment specifications of any storage well, wellhead, pipe, line, tube, and instrumentation up to, and including, the first emergency shutdown valve at the system, and the properties of the regulated substance stored in the cavern.

"Mechanical integrity test" means the procedure by which the selected test pressure is used to determine if a system is capable of storing a regulated substance under the system's maximum allowable operating pressure without compromising the system's structural stability.

"Minimum design pressure" means the minimum pressure of the regulated substance at which an underground storage cavern system is capable of maintaining its mechanical integrity.

"Minimum design temperature" means the minimum temperature of the regulated substance at which an underground storage cavern system is capable of maintaining its mechanical integrity.

"Minimum operating pressure" means the minimum pressure of the regulated substance that is expected during operation.

"Minimum operating temperature" means the minimum temperature of the regulated substance that is expected during operation.

"Minor modification" means any change to the design or construction of an underground storage cavern system or change in the method of operation of the system that affects storage, injection, or withdrawal activities that is not a major modification.

"Modify" or "modification" means any change to the design or construction of an underground storage cavern system or change in the method of operation of the system that

affects storage, injection, or withdrawal activities. A modification does not include repairs or maintenance.

"Monitoring well" means a borehole used to observe the elevation of the water table or potentiometric surface, or to measure water quality.

"Natural or artificial gas" or "gas" means any substance, whether naturally occurring or synthetic, that exists in a gaseous state at standard temperature and pressure, or 32 degrees Fahrenheit and atmospheric pressure.

"Operation" or "operate" means any ongoing injection, withdrawal, or storage at an underground storage cavern system.

"Operator" means any person who leases, operates, controls, supervises, or has responsibility for, the daily operation of an underground storage cavern system, and each person who has the authority to operate, control, or supervise the daily operation of a system. There may be more than one operator of a system.

"Owner" means any person who owns a facility, or any person who has a legal or equitable title to a site containing a facility.

"Permit" means the approval issued by the Department pursuant to N.J.A.C. 7:1F-4 to construct and operate an underground storage cavern system.

"Person" means any individual or entity, including, without limitation, a public or private corporation, company, estate, association, society, business firm, partnership, joint stock company, foreign individual or entity, interstate agency, or authority, the United States and any of its political subdivisions, the State of New Jersey, or any of its political subdivisions, or any other meanings that apply to the common understanding of the term. "Person" shall, for the

purpose of enforcement, also include a responsible corporate official, including a managing member of a limited liability company or a general partner of a partnership.

"Petroleum product and its derivative" means any substance that is a complex mixture, whether natural or synthetic, of different hydrocarbons with small amounts of other substances, such as compounds of oxygen, sulfur, or nitrogen, or metallic compounds, or any of the products obtained by refining processes, such as fractional distillation, cracking, catalytic reforming, alkylation, or polymerization. This term includes, but is not limited to, methane, ethane, propane, butane, gasoline, kerosene, fuel oil, synthetic oil, crude oil, and liquified petroleum gas or LPG. For purposes of this chapter, this definition does not include liquefied natural gas.

"Process hazard analysis" means a systematic study of engineering and design drawings and documents, standard operating procedures, and maintenance procedures conducted by an owner and operator to analyze and determine potential release scenarios, incorporated safeguards, and additional recommended risk reduction measures.

"Regulated substance" or "substance" means a gas or a petroleum product and its derivative injected, withdrawn, stored, or proposed to be injected, withdrawn, or stored at an underground storage cavern system. For purposes of this chapter, this definition does not include liquefied natural gas.

"Release" means a discharge or emission of a regulated substance from an underground storage cavern system, excluding any discharge or emission occurring pursuant to, and in compliance with, any Department permit or regulation.

"Repair" or "maintain" means the upkeep of an underground storage cavern system, including the replacement of parts to ensure continued operation, in accordance with the design specifications of the system.

"Safety margin" means the pressure value that is equal to 10 pounds per square inch gauge (psig) or 10 percent of the test pressure, whichever is greater. The safety margin value is used to determine the maximum allowable operating pressure of an underground storage cavern system.

"Shaft" means any borehole used to access an underground storage cavern, including the excavation or the support of the excavation of the cavern. This term refers to any borehole used for the purposes of removing excavated materials, access for personnel and supplies, or ventilation.

"Site" means the contiguous piece of property at which a facility is located.

"Storage well" means the borehole that connects the underground storage cavern to the surface and is used to inject or withdraw a regulated substance.

"Surface footprint" means the area of land at a site that is located directly above an underground storage cavern.

"Test pressure" is the pressure value in pounds per square inch gauge (psig) selected to be used in a test to verify the integrity of the cavern system. The test pressure must be less than or equal to the maximum design pressure.

"Underground storage cavern" or "cavern" means a pocket or other underground area or place in any underground stratum excavated and used for the purpose of storing a regulated

substance, or a natural geologic trap of any kind used for the purpose of storing a regulated substance.

"Underground storage cavern system" or "system" means an underground storage cavern and associated ancillary equipment including, but not limited to, wells, wellheads, pipes, lines, tubes, and instrumentation that are used for operation of the system up to and including the first emergency shutdown valve, any associated, adjacent maintenance valves, and the pressure relief valve(s) installed to protect the cavern from over pressurization.

"Well" means any abandoned, exploratory, monitoring, or storage well pursuant to this chapter, or any well that is regulated pursuant to the Well Construction and Maintenance rules at N.J.A.C. 7:9D.

"Wellhead protection area" means an aquifer area around a well, from within which ground water flows to the well and through which ground water pollution, if it occurs, may pose a significant threat to the water quality of the well. The wellhead protection area is delimited by the use of time-of-travel and hydrologic boundaries.

"What-If Analysis" means a systematic study of updated engineering design drawings that describe the cavern system taking into consideration process chemistry, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The study is a brainstorming approach in which team members familiar with the subject process ask questions or voice concerns about possible undesired events. The What-If Analysis identifies hazards, hazardous situations, or specific accident events that could produce an undesirable consequence. The concerns (often phrased in the form of "what if" questions) are formulated based on experience and applied to existing drawings and process descriptions for the cavern

system. Results of the study are reported on a table as follows: the "what if" question and its corresponding consequence/hazard, the criticality based on the quantity or rate of the potential release, existing safeguards in place, and the recommended action in terms of equipment or procedure to mitigate the consequence/hazard.

"What-If/Checklist study" means a systematic study of updated engineering design drawings that describe the cavern system taking into consideration process chemistry, standard operating procedures, maintenance procedures, operator job descriptions, and other documents. The What-If/Checklist study is a combination of the What-If and Checklist methods which uses a written list of questions to verify the status of a cavern system that are created by organizing information from current relevant codes, standards, and regulations, and team members familiar with the subject process ask questions or voice concerns about possible undesired events. Results of the study are reported for the cavern system on a table as follows: each "What if/Checklist" item and/or question and its corresponding consequence and/or hazard, the criticality based on the quantity or rate of the potential release, and the recommended action in terms of equipment or procedure to mitigate the consequence/hazard.

7:1F-1.7 Municipal ordinances or regulations

Any ordinance or regulation of any governing body of a municipality or county or board of health shall not be superseded by this chapter, and nothing in this chapter shall preclude the right of any governing body of a municipality or county or board of health to adopt ordinances or regulations.

7:1F-1.8 Certification of information

(a) Any person who submits an application, report, or other document to the Department pursuant to the requirements in this chapter shall include the following certification or certifications:

1. A certification, signed by the person or persons, including, but not limited to, any consultants, licensed engineers, or contractors, with direct knowledge of, and responsibility for, the information contained in the certified document. The certification shall state:

"I certify under penalty of law that I believe the information provided in this document is true, accurate, and complete."

2. A certification signed by a responsible corporate official that states:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and any of its attachments and, based on my inquiry of those persons immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete."

(b) The certification at (a)2 above shall not be required if the person required to sign the certification at (a)1 above is the same person required to sign the certification at (a)2 above.

7:1F-1.9 Fees

(a) Fees for underground storage cavern permits, compliance monitoring, modification, and decommissioning shall be paid to the Department by the owner or operator of an underground storage cavern, in accordance with this section.

(b) Fees shall be paid in U.S. dollars through the Department's online payment system or by certified check, check, or money order, payable to "Treasurer, State of New Jersey," and mailed along with the fee invoice on or before the indicated due date, to the following address:

Department of Treasury

Division of Revenue

PO Box 417

Trenton, NJ 08646-0417

(c) The Department shall charge a reasonable fee for services performed in connection with underground storage cavern permitting, compliance monitoring, modification, and decommissioning. The fee to be charged by the Department shall be based on actual hours worked, multiplied by an hourly rate of \$140.00. For each State fiscal year after State fiscal year 2022, the hourly rate shall be adjusted pursuant to (i) below.

1. The Department shall compute the hourly rate as follows:

Hourly Rate = (AS+FB+IC+OE)/BH

Where:

AS = The average annual salary of the Direct Program staff assigned.

FB = The average fringe benefits for an employee calculated as a percentage of the average salary. The New Jersey Department of the Treasury sets the percentage annually, based on costs associated with pensions, health benefits, workers compensation,

disability benefits, unused sick leave, and the employer's share of the Federal Income Compensation Act (FICA) contribution.

IC = The indirect costs, calculated at a rate negotiated annually between the Department and the United States Environmental Protection Agency. Indirect costs are those costs incurred for a common or joint purpose, benefiting more than one objective and not readily assignable to the cost objective specifically benefited without effort disproportionate to the result achieved. Indirect costs consist of Department management salaries and operating expenses, divisional indirect salaries and related expenses (personnel, fiscal, and general support staff), building rent, and the Department allocation of indirect costs listed in the Statewide Allocation Plan prepared annually by the State Department of the Treasury. Indirect costs do not include the salaries for Department overhead staff or direct support personnel. To calculate the IC, the current negotiated rate is multiplied by the sum of AS and FB.

OE = The average operational expenses attributable to an employee. Operating expenses include costs incurred in connection with the program for such items as postage, telephone, training, travel, supplies, equipment maintenance, vehicle maintenance, and data system management (internal systems, such as the New Jersey Environmental Management System (NJEMS) and external mainframe applications through the Office of Information Technology).

BH = The billable hours, which is the average number of hours each direct program staff position spends annually performing activities for which fees are assessed. This number is determined by starting with the total number of days in the calendar year,

365. Then weekends and holidays are subtracted. This figure is further reduced by subtracting days for the average amount of used employee leave time (vacation, sick, and administrative leave days). Finally, the figure is adjusted by subtracting days for training and other non-billable staff time (such as medical surveillance, time sheet preparation, staff meetings, and other general functions). This results in 204 working days annually that can be allocated to specific objectives. 204 days multiplied by seven hours per workday equals 1,428 billable hours.

(d) The fee(s) charged for underground storage cavern permitting shall not exceed the maximum amounts listed below for State fiscal year 2022. For each State fiscal year after State fiscal year 2022, the maximum fee(s) shall be adjusted pursuant to (i) below.

1. Administrative review and processing of application and supporting documents for construction approval, pursuant to N.J.A.C. 7:1F-4.2(c): \$16,500.

2. Technical review and processing of application and supporting documents for construction approval, pursuant to N.J.A.C. 7:1F-4.2(d): \$98,600.

3. Administrative review and processing of documents submitted for a permit to operate the underground storage cavern, pursuant to N.J.A.C. 7:1F-4.2(i): \$16,500.

4. Technical review and processing of documents submitted for a permit to operate the underground storage cavern, pursuant to N.J.A.C. 7:1F-4.2(j): \$49,300.

5. Permit renewal submitted, pursuant to N.J.A.C. 7:1F-4.6(b):

i. Administrative review and processing of the application and supporting documents: \$16,500.

ii. Technical review and processing of the application and supporting documents:

\$49,300.

6. Minor modification approval:

i. Administrative review and processing of the application and supporting

documents, pursuant to N.J.A.C. 7:1F-5.1(c): \$16,500.

ii. Technical review and processing of the application and supporting documents,

pursuant to N.J.A.C. 7:1F-5.1(d): \$49,300.

7. Major modification approval:

i. Administrative review and processing of the application and supporting documents, pursuant to N.J.A.C. 7:1F-5.2(b): \$16,500.

ii. Technical review and processing of the application and supporting documents,

pursuant to N.J.A.C. 7:1F-5.2(c): \$98,600.

8. Technical review and processing of the application and supporting documents of a dormancy plan approval, pursuant to N.J.A.C. 7:1F-5.3(b): \$16,500.

(e) For a cavern system not regulated by the Toxic Catastrophe Prevention Act Program,

N.J.A.C. 7:31, the owner and operator shall be assessed fees as provided at (f) below for

inspections, compliance reviews, review of quarterly monitoring reports pursuant to N.J.A.C.

7:1F-3.3, and review of dormancy plans, pursuant to N.J.A.C. 7:1F-5.3.

(f) The Department shall calculate fees, as follows:

1. Calculate task hours by determining the number of hours (determined from time coding or workload analysis) required of direct program staff.

2. Multiply the hourly rate derived at (c)1 above by the task hours calculated at (f)1 above.

(g) Fees will be calculated during the review process and assessed per activity. A fee shall not be prorated or refunded. The Department will bill the applicant prior to issuing the written determination to the cavern owner and operator on the outcome of the review activity. Payment will be required within 30 days of the billing date.

(h) Confidentiality claims substantiation. Any person submitting information to the Department and asserting a confidentiality claim in accordance with the procedures set forth at N.J.A.C.
7:1F-8 shall pay a fee of \$750.00.

1. The confidentiality claim substantiation fee shall be adjusted by the Consumer Price Index for each year after 2022. The Consumer Price Index used to adjust the confidentiality claim substantiation fee shall be the Annual Average Consumer Price Index for Urban Consumers (CPI-U) for the U.S. City Average, 1982-84=100, not seasonally adjusted, as published annually by the United States Department of Labor, Bureau of Labor Statistics (<u>https://www.bls.gov/</u>). The adjusted confidentiality claim substantiation fee shall be calculated by multiplying \$750.00 by the CPI-U for the year of the confidentiality claim substantiation submission divided by the CPI-U for the year 2022.

2. If the CPI-U for the year of the confidentiality claim substantiation submission percentage change is less than the CPI-U for 2022, the fee shall remain unchanged.

3. The fee shall be rounded down to the nearest dollar.

(i) The monetary amounts established at (c) and (d) above shall be adjusted annually using current values for average annual salary, average fringe benefits, indirect costs, and average

operational expenses. The adjusted fees shall be reflected through a notice of administrative change, published in the New Jersey Register.

(j) The Department may refrain from commencing work on reviews of underground storage cavern permits or approvals until it receives full payment of any outstanding fee(s) for prior review(s). If the Department has commenced work on a subsequent review, the Department may suspend such work until it receives full payment of the outstanding fee(s).

(k) Any fee under this subchapter that is subject to N.J.A.C. 7:1L shall be payable in

installments, in accordance with N.J.A.C. 7:1L.

7:1F-1.10 Program information

(a) Unless otherwise specified, forms, checklists, and other information related to this chapter can be requested from the Bureau of Release Prevention at the address at (b) below, by telephone at (609) 633-0610, by fax at (609) 633-7031, by email at <u>release_prevention@dep.nj.gov</u>, or obtained through the Bureau's website at <u>https://www.nj.gov/dep/enforcement/brp.htm</u>. Further information about the Department can be accessed at www.nj.gov/dep/.

(b) Applications, forms, and correspondence related to this chapter must be submitted to the New Jersey Department of Environmental Protection, Bureau of Release Prevention, Mail Code 22-03D, 401 East State Street, PO Box 420, Trenton, New Jersey, 08625-0420, or by email at release_prevention@dep.nj.gov.

(c) Applications, forms, or other materials sent or delivered to the Department at an address other than as listed at (b) above shall not be deemed to have been received for the purposes of calculating application review deadlines or other time periods pursuant to this chapter.

SUBCHAPTER 2. CONSTRUCTION OF AN UNDERGROUND STORAGE CAVERN

7:1F-2.1 Feasibility study

(a) Prior to construction of any underground storage cavern system and as part of any application for a permit pursuant to N.J.A.C. 7:1F-4, the owner and operator shall conduct and submit to the Department a feasibility study that includes the following information:

1. The approximate location, capacity, dimensions, and depth of the proposed underground storage cavern;

2. The locations of any shaft or well drilled or proposed to be drilled;

3. An assessment of the geographical, topographical, and physical data for the site of the underground storage cavern system, including the regional and site-specific geologic and hydrogeologic settings of the system, and the observed fluctuations of the local ground water levels;

4. Identification of the regulated substance to be stored including, if applicable, the concentration of any component of the regulated substance;

5. An assessment of the compatibility of the regulated substance with all parts of the system and a demonstration that the mechanical integrity of the system will not be impaired;

6. An assessment of all available sources of information to demonstrate that any well, including any abandoned well, at the proposed site:

i. Has been constructed in accordance with all applicable local, State, and Federal laws; and

ii. All known abandoned wells have been properly decommissioned in accordance with the requirements at N.J.A.C. 7:9D, the Well Construction and Maintenance rules;

7. An assessment of any existing surface infrastructure or activity at the proposed site and its effect, if any, on the system's mechanical integrity; and

8. An assessment of all applicable local, State, and Federal laws including, but not limited

to, Department rules that are applicable to the project.

(b) The feasibility study shall be completed by a person experienced with the design and construction of an underground cavern system and mechanical integrity.

(c) The feasibility study shall be certified by a licensed professional engineer.

7:1F-2.2 Design and construction

(a) Prior to construction of any underground storage cavern system and as part of any application for a permit pursuant to N.J.A.C. 7:1F-4, the owner and operator shall submit, to the Department, design specifications and construction plans for the system, including:

1. A paper copy, together with a digital version as specified at (b) below, of an accurate map to scale showing the location, dimensions, and depth of any proposed underground storage cavern and of all shafts and wells drilled or proposed to be drilled;

2. Any engineering design drawing(s) of the system;

3. Any construction and engineering calculations associated with the underground storage cavern system, including any supporting documentation;

4. The specifications of the equipment and material to be installed or otherwise used during construction;

5. A description of the methods of construction to be utilized, including, but not limited

to, methods of excavation and shaft construction and grouting;

6. The maximum allowable operating pressure, maximum and minimum design

pressures, and maximum and minimum design temperatures of the system;

7. The maximum and minimum operating pressures and temperatures of the system,

based on the regulated substance;

8. The codes and standards upon which the design specifications are based;

9. Corrosion control measures; and

10. A dust management plan that sets forth measures to control particulate dust from construction activities and sources that include, but are not limited to, muck piles, loading and haulage, material transfer points, crushers, face drilling, blasting, roof bolting, skip loading, dumping, surface work areas, and roadways.

(b) The map specified at (a)1 above must meet the following requirements:

1. The map must be prepared in a digital environment that is compatible with the Department's Geographic Information System. Compatible digital formats include AutoCAD and Arc GIS;

2. The map must be projected in New Jersey State Plane feet (North American Datum 1983); and

3. The map must contain a legend block stating the name and affiliation of the preparer of the map, the preparer's signature and seal, the name and location of the facility, the scale or scales employed, the sources of the data used, and the date of preparation of the map.(c) The owner and operator of the system shall comply with the following construction requirements:

1. Construction of the system and storage of materials related to construction, including any excavated materials, must be completed in accordance with the Mine Safety Act, N.J.S.A. 34:6-98.1 et seq., and the Explosives Act, N.J.S.A. 21:1A-128 et seq., as applicable, and all other applicable local, State, and Federal laws.

2. A system must be constructed in adherence with the design specifications submitted to the Department pursuant to (a) above. If during construction, the owner or operator deviates from the Department-approved design specifications, the owner and operator shall notify the Department, in writing, and provide updated design specifications certified by a licensed professional engineer for approval by the Department.

i. For purposes of this section, a deviation that affects the regulated substance or the maximum and/or minimum operating temperatures and/or pressures shall be considered a major modification and require additional evaluation and approval, including approval pursuant to N.J.A.C. 7:1F-5.2.

3. In addition to the requirements for well construction at N.J.A.C. 7:9D, any well or shaft must be constructed with casing of appropriate depth, cementing, tubing, pipes, and other equipment to ensure and maintain mechanical integrity.

4. The separation between any individual underground storage caverns within a new or expanded facility shall be a distance sufficient to ensure that the caverns are able to maintain mechanical integrity and can be safely operated, and that the migration of the regulated substance(s) between caverns is prevented.

5. Corrosion control measures must be implemented during construction.

6. Instrumentation to measure the pressure, level, flow rate, and temperature of any regulated substance that is injected or withdrawn from the cavern must be installed and calibrated.

7. A ground water detection monitoring system must be installed, at appropriate locations and depths, to detect any releases from the system to ground water.

8. A ground water level (high and low) monitoring system must be installed at appropriate locations and depths.

9. A dust control plan must be implemented during all construction activities.

10. An atmospheric detection system for accidental releases must be installed.

11. A soil vapor monitoring system designed to detect any migration of the regulated substance in the soil above the cavern area must be installed.

12. The system must include a first emergency shutdown valve (first ESV) on any penetration shaft used to inject or withdraw the regulated substance into the cavern, except the vapor pressure relief line. The first ESV must be, at a minimum:

i. Fail-safe;

ii. Fire-safe;

iii. Part of an emergency shutdown system that will close the valve upon detection of excess flow or pressure, gas leak detection, or fire;

iv. Capable of being activated locally at the cavern area and remotely; and

v. Incapable of being opened remotely.

(d) The owner shall maintain, and control, all of the surface and mineral rights of all privately

owned land within 300 feet of the surface footprint of the cavern.

(e) All information required pursuant to this section shall be completed in accordance with

accepted industry standards and certified by a licensed professional engineer.

7:1F-2.3 Process hazard analysis

(a) If an owner and operator of an underground storage cavern system stores a regulated substance that is an extraordinarily hazardous substance as defined pursuant to the Toxic Catastrophe Prevention Act Program rules at N.J.A.C. 7:31-1.5, the requirements of that chapter shall apply to process hazard analyses.

(b) If (a) above is not applicable to an owner and operator, the following requirements apply:

1. The process hazard analysis must be conducted using one of the following methodologies:

i. What-If Analysis;

ii. Checklist;

iii. What-If/Checklist;

iv. Hazard and Operability Study or "HAZOP";

v. Failure Mode and Effects Analysis or "FMEA";

vi. Fault Tree Analysis or "FTA"; or

vii. An appropriate equivalent methodology.

2. The process hazard analysis must address:

i. The hazards of the system;

ii. Any previous incident that had a likely potential for catastrophic consequences;
iii. Any engineering and/or administrative controls applicable to the hazards and their inter-relationships, such as the appropriate application of detection methodologies, including system monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors, to provide early warning of a release;

iv. Consequences of failure of the engineering and/or administrative controls;

v. Siting of the system;

vi. Human factors; and

vii. A qualitative evaluation of a range of the possible safety, environmental, and health effects of failure of the engineering and/or administrative controls.

3. The owner and operator shall perform the process hazard analysis in accordance with the following:

i. The owner and operator shall utilize a team with expertise in engineering and operations to assist with the process hazard analysis. The team shall include at least one employee of the owner and operator who has experience and knowledge specific to the system, and one person knowledgeable in the process hazard analysis methodology being used.

ii. Following completion of the process hazard analysis, the owner and operator shall:

(1) Assure that the recommendations are resolved in a timely manner and that the resolution is documented; and

(2) Document what actions are to be taken, complete the actions as soon as possible, develop a written schedule of when additional actions are to be completed, and communicate the actions with operating, maintenance, and other employees whose work assignments are in the system and who may be affected by the recommendations or actions.

7:1F-2.4 Assessments of environmental, health, and climate change impacts

(a) Prior to construction of any underground storage cavern system and as part of any application for a permit pursuant to N.J.A.C. 7:1F-4, the owner and operator of an underground storage cavern system shall prepare and submit to the Department an environmental and health impact statement (EHIS) utilizing a systematic, interdisciplinary approach in order to ensure the integrated assessment of technical, economic, environmental, and social parameters potentially affected by the construction and operation of an underground storage cavern system. The EHIS must include an environmental inventory, environmental assessment, and health assessment, as described at (b), (c), and (d) below. Where the information addressing a requirement of the inventory is supplied in the engineering designs or reports, reference to such designs or reports may be noted in the inventory, provided the appropriate section and page number of the design or report is cross-referenced and indexed.

(b) The environmental inventory must contain a description of the information listed below. If any category described below presents no impact relative to the proposed facility, a notation of non-applicability shall be entered in the environmental inventory for that category.

1. The purpose of the underground storage cavern system, including an analysis of the social and economic benefits to the owner and operator and the local community;

2. The construction of the system, including:

i. An anticipated schedule of major phases of work; and

ii. The planned destination for excavated materials and any potential environmental concerns;

3. The operations at the system after construction, including an estimate of the volume of the regulated substance to be handled and/or transferred, methods of handling and/or transfers, and a layout of the system that depicts handling and transfer locations;
4. The surrounding vicinity of the proposed system or facility, including a vicinity map, to scale, depicting the boundaries of the facility, the specific zoning designations within 1,000 feet of the perimeter of the boundaries of the facility, the location of all existing and proposed utility lines, pipelines, or other utility structures that will service the facility, including, but not limited to, the stormwater drainage system, sanitary sewer system, water supply system, and energy system, other subsurface activities, including drilling, storage, mining, and/or wells not related to the operation of the system, and all wellhead protection areas;

5. The site of the proposed system, including a site plan map, to scale, specifying the boundaries of the facility, total acreage, surface footprint of any system, and a layout of all buildings, access roads, internal routes of traffic flow, and monitoring systems;
6. The impact that the proposed facility will have on local transportation patterns, drainage and soil characteristics, surface and ground water quality, endangered or threatened wildlife and vegetation, storm water and wastewater collection and/or treatment capability, water supply capability, ambient acoustical conditions, and air quality;

7. How the system or facility will conform or conflict with the objectives of any applicable Federal, State, or local land use and environmental requirements including, but not limited to, those affecting the following:

i. The floodway and flood fringe areas of the flood hazard areas as identified by the Department pursuant to the State Flood Hazard Area Control Act, N.J.S.A.
58:16A-50 et seq., or areas identified under the flood insurance studies prepared by the Federal Emergency Management Agency (FEMA);

ii. Areas designated as wild, scenic, recreational, or developed recreational rivers pursuant to the Natural Wild and Scenic Rivers Act, 16 U.S.C. § 1271, or the New Jersey Wild and Scenic Rivers Act, N.J.S.A. 13:8-45 et seq.;

iii. Critical habitat of endangered or threatened species of plants, fish, or wildlife as defined by the Federal Endangered Species Act of 1973, P.L. 93-205, or the New Jersey Endangered and Non-Game Species Conservation Act, N.J.S.A.
23:2A-1 et seq.;

iv. Wetlands, tidelands, and coastal zone areas, as identified by the Department,
pursuant to the Coastal Zone Management Rules, N.J.A.C. 7:7, and as identified
on the U.S. Fish and Wildlife Services National Wetlands Inventory Maps;
v. The Preservation and Protection Areas, as established by the Pinelands
Protection Act, N.J.S.A. 13:18A-1 et seq., and Highlands Water Protection and
Planning Act, N.J.S.A. 13:20-1 et seq.;
vi. Nonattainment areas, as defined at N.J.A.C. 7:27-18;
vii. Areas subject to the prevention of significant deterioration of air quality

criteria, as defined at 40 CFR 52.21;

viii. Activities that may impact the acoustical quality of residential and commercial properties, pursuant to N.J.A.C. 7:29;

ix. Activities that may significantly impact water quality, pursuant to N.J.A.C.7:15;

x. Lands that have been duly certified by the State Agriculture Development Committee as agricultural development areas, pursuant to the Agricultural Retention and Development Act, N.J.S.A. 4:1C-11 et seq.;

xi. Watershed areas for water classified by the Department as FW-1 waters or FW-2 Trout Production Waters, pursuant to the Surface Water Quality Standards, N.J.A.C. 7:9B;

xii. Areas over a sole source aquifer designated pursuant to Section 1424(e) of the Safe Drinking Water Act of 1974 (Public Law 93-523, 42 U.S.C. §§ 300 et seq.);

xiii. Areas within the critical supply areas as defined by the Water Supply Management Act, N.J.S.A. 58:1A-1 et seq.;

xiv. Areas that will encroach upon, damage, or destroy any area, site, structure, or object included in the National or State Register of Historic Places established by N.J.S.A. 13:1B-15.128;

xv. The re-use or disposal of excavated rock or materials, as defined by the

Mine Safety Act, N.J.S.A. 34:6-98.1 et seq.;

xvi. Areas dedicated to recreational or open space use including, but not limited to, national parks, national recreation areas, national forests, national wildlife refuges, State wildlife management areas, State parks, State forests, Statedesignated natural areas, and county or local parks, wildlife sanctuaries, and recreational facilities;

xvii. Areas subject to cleanup pursuant to the Industrial Site Recovery Act,

N.J.S.A. 13:1K-6 et seq.; and

xviii. New Jersey's Executive Order No. 100 (2020) and the resulting Department-adopted rules and guidance documents implementing protections against climate threats.

(c) An environmental assessment must provide a detailed evaluation of the potential impacts of the proposed facility on the environment including, but not limited to, all parameters identified in the environmental inventory at (b) above. The assessment shall include, but not be limited to, the following:

An evaluation of both positive and negative, as well as, primary (direct or immediate) and secondary (indirect or long term) impacts on each parameter under conditions of maximum usage and a correlation of such impacts with various stages of the site preparation, facility construction, operation, dormant, and decommissioning phases;
 An identification and description of the modeling techniques used to predict impacts on the various parameters identified at (b) above. Where applicable, a calibrated and verified model shall be used and a copy of the model in the appropriate format shall be transmitted to the Department. Where an accepted modeling technique is not available, best professional judgment may be used. A detailed description of the logical reasoning and assumptions made in the exercise of best professional judgment shall be incorporated to permit independent review;

3. Isopleths, grid maps, or other maps to depict potential zones of substance migration surrounding any and all sources of a release. Identify the type and location of each source;

4. A quantification of all potential environmental impacts identified, where possible. If such quantification is not included, an explanation of the reason for such omission shall be provided;

5. A qualitative discussion of all potential environmental impacts identified; and6. A description of the mitigative techniques proposed to address any potential environmental impact associated with the proposed system.

(d) A health impact assessment must provide a detailed evaluation of the potential impacts on human health of a release of a regulated substance from a proposed system, including, but not limited to, the following:

1. A description and discussion of the health risk assessment methodology to be employed, including detailed descriptions of the logical reasoning and assumptions employed in the method. A bibliography of reference material utilized in the preparation of the assessment shall be provided.

2. A discussion of the level of uncertainty involved in the overall assessment. This discussion shall address the uncertainty involved in the estimation of individual parameters, such as the size and scope of the release, levels of exposure and health effects, as well as the implications of complex uncertainties;

3. A listing of all potential substances that could be released from the system, and the amount of the release, concentrations, and pathways;

4. Based on the list at (d)3 above, a separate listing of substances that will be utilized to assess health risks, including all known carcinogens;

5. For each of the substances listed at (d)4 above, a toxicity profile shall be developed, as applicable. This profile shall include data on the physical and chemical nature of the regulated substance, as well as a description and discussion of data available regarding the environmental fate, acute and chronic effects, and epidemiology of the substance. This profile shall include a listing of available toxicological, epidemiological, or other acute or chronic health effects studies used or otherwise available on the regulated substance;

6. A quantification of the potential health impacts, where possible. If such quantification is not included, an explanation of the reason for such omission shall be provided; and7. A detailed description of the mitigation techniques proposed to address any potential health impacts associated with the proposed facility.

(e) The EHIS must include a summary discussion of any potential adverse impacts identified in the environmental and health assessments at (c) and (d) above that cannot be avoided should the proposed facility be constructed and be operational. For those impacts that cannot be avoided, their implications, and the reasons why the proposed facility should be permitted, shall be described. Where mitigation measures are proposed to reduce these potentially adverse impacts, the projected effectiveness and costs of the mitigative measures shall be discussed.

(f) The owner and operator of a system shall include a climate change impact assessment with any application for a permit or permit renewal pursuant to N.J.A.C. 7:1F-4. Assessing the impacts of climate change on a system shall be conducted, in accordance with (f)1 through 4 below. The Department may accept a climate change impact assessment, or similar evaluation conducted to satisfy other Department regulatory or permitting programs provided it includes the items described in this subsection.

1. The assessment shall contain the following information:

i. The name, telephone number, and location of the facility, including street address, county, and municipality;

ii. The name, title, telephone number, email address, and business address of the preparer of the assessment;

iii. A certification by the owner, operator, and preparer, if applicable, pursuant toN.J.A.C. 7:1F-1.8; and

iv. The data, potential impacts, and measures to prevent discharges and mitigate the climate change impacts evaluated at (f)2, 3, and 4 below.

2. At a minimum, the assessment shall use data and tools from the Department's Climate Change website (<u>https://www.nj.gov/dep/climatechange</u>) or other current scientific resources, which must be referenced in the prepared document, to provide a written report considering the following scenarios:

i. Whether the system, including any above-ground ancillary equipment, is located within a flood hazard area, as delineated by the Flood Hazard Area Control Act Rules, N.J.A.C. 7:13. A system not located in a flood hazard area shall identify the distance from the cavern system to the closest flood hazard area and minimum value or depth flood waters would have to rise to potentially reach the cavern system, using data available at the time the assessment is being prepared for the Department;

ii. The 100-year storm events and facility flooding expected;

iii. The facility's proximity to sea level rise projections for New Jersey at approximately one, 2.5, four, and seven feet above year 2000 average sea level.Depending on the data, tools, and scientific resources used, the approximate values may vary, but should remain within 0.5 feet of the values given here; and iv. Extreme weather events, such as hurricanes, tropical storms, tornados, or significant precipitation.

3. Using the data and projections at (f)2i through iv above to develop a written summary.

i. Evaluating the potential of a release or impacts to the system.

ii. Analyzing the risk to the system from flooding or potential inundation.

iii. Evaluating the potential for health-related impacts that may result from

flooding or other damage to the system or a release of the regulated substance into

flood waters.

iv. Maps may be included, and should be in a format specified by the Department.

4. A list of measures to prevent releases and mitigate the climate change impacts summarized at (f)3 above, including:

i. Those determined to be already present at the facility, or in the design specifications for construction of a proposed cavern system; and

ii. Those selected to be implemented and an anticipated schedule for their implementation.

(g) In addition to the requirements pursuant to this section, the Department retains the right to request additional information from the applicant regarding the EHIS or climate change impact assessment.

7:1F-2.5 Third-party evaluation

(a) The owner and operator of an underground storage cavern system shall engage a third party to independently review the feasibility study as required at N.J.A.C. 7:1F-2.1, the design and construction submittals as required at N.J.A.C. 7:1F-2.2, and the process hazard analysis as required at N.J.A.C. 7:1F-2.3.

(b) The owner and operator shall determine and document that the third party meets the following competency and independence requirements:

 The third party shall be knowledgeable regarding geologic formations and product attributes necessary for the review of the feasibility study and process hazard analysis;
 The third party shall be experienced with the design and construction of cavern

systems and applicable, accepted industry standards;

3. The third party shall act impartially when performing any evaluation activity pursuant to this chapter;

4. The third party shall receive no financial benefit from the outcome of its evaluation beyond that for the evaluation itself;

5. The third party shall not have conducted any past research, development, design, construction, or consulting services for the owner or operator within the two years prior to being engaged by the owner and operator. For purposes of this requirement, consulting does not include performing or participating in third-party evaluations pursuant to this chapter;

6. The third party shall not provide any business or consulting services to the owner or operator, including any advice or assistance to implement the findings or recommendations of the third party's evaluation, for a period of at least two years following the submission of the evaluation; and

7. The third party shall sign a conflict of interest statement certifying that it and its personnel shall comply with the provisions at (b)3,4, 5, and 6 above and shall not accept

future employment with the owner or operator for a period of at least two years following submission of the third party's evaluation.

(c) The owner and operator shall submit documentation to the Department, prior to the

submission of any evaluation report and as part of a permit application pursuant to N.J.A.C.

7:1F-4, demonstrating that the third party meets the competency and independence requirements

at (b) above.

(d) The owner and operator shall ensure that the third party:

1. Manages the evaluation and participates in the initiation, design, implementation, and reporting of the evaluation;

2. Determines the appropriate roles and responsibilities for the personnel involved in the evaluation;

3. Prepares an evaluation report; and

4. Certifies the evaluation report and its contents as meeting the requirements listed at (e) below.

(e) An evaluation report shall:

1. Identify all personnel of the third party participating in the evaluation, including names, titles, employers, and/or affiliations, and summaries of qualifications;

 Include an evaluation of each component of the feasibility study, design specifications, and process hazard analysis required at N.J.A.C. 7:1F-2, and identify any compliance, design, or performance deficiencies;

3. Describe, with specificity, the documents or materials reviewed, and the review methods and calculations used; and

4. Include the certification required at N.J.A.C. 7:1F-1.8.

SUBCHAPTER 3. OPERATING REQUIREMENTS

7:1F-3.1 As-built specifications and mechanical integrity

(a) Prior to beginning operation activities, the owner and operator shall prepare and provide to

the Department:

- 1. A map to scale of the location of the system as constructed;
- 2. As-built diagrams of the system; and

3. A report of the geological conditions encountered during construction including, if applicable, any steps taken to stabilize the cavern or system, and any modifications from the initial proposal. The location of any stabilization efforts should be depicted on a map of appropriate scale.

(b) Prior to the injection of any regulated substance, the owner and operator shall:

- 1. Conduct a mechanical integrity test at the selected test pressure of the cavern system in its entirety and each individual penetration into the cavern;
- 2. Measure the storage volume of the cavern;

3. Provide the results of the mechanical integrity tests demonstrating the system is capable of storing a regulated substance under the system's maximum allowable operating pressure; and

4. Provide the precise storage volume measurement to the Department.

(c) The information in this section shall be certified by a licensed professional engineer, in accordance with accepted industry standards.

7:1F-3.2 Operation and maintenance

(a) The owner and operator of an underground storage cavern system shall submit to the Department a plan for the operation and maintenance of the system. The plan shall:

1. Establish procedures for air monitoring to detect any release of a regulated substance.

2. Establish procedures for ground water and soil vapor monitoring, in accordance with

N.J.A.C. 7:1F-3.3.

3. Establish procedures to operate the system at all times within the maximum and minimum operating pressures and temperatures as submitted to the Department pursuant to N.J.A.C. 7:1F-2.2 and maintain records of these operating parameters. The maximum operating pressure (MOP) must be less than the maximum allowable operating pressure (MAOP). The owner and operator shall provide the Department any information necessary to demonstrate that appropriate safety measures will be implemented and maintained to prohibit pressures and temperatures outside the range approved by the Department.

- 4. Establish the following additional operating procedures:
 - i. Procedures for the initiation of operation activities;

ii. Procedures for the cessation of operation activities under normal operating conditions;

iii. Procedures for the initiation of operation activities after a period of dormancy or decommissioning, which must include testing pursuant to (a)1 above;iv. Procedures for normal operating conditions;

v. Procedures for abnormal operating conditions, including the expected consequences of any deviation and steps required to correct or avoid the deviation;

vi. Procedures during emergency conditions;

vii. Procedures for operation activities under temporary or special operating conditions; and

viii. A description of any safety systems, including information regarding the safety systems' functions.

5. Establish a maintenance plan, including:

i. A schedule for inspection and testing of ancillary system equipment including, but not limited to, storage wells, wellheads, pipes, lines, tubes, and instrumentation up to and including the first emergency shutdown valve. The schedule must include a list of equipment, the identification of the type of inspection and test, and the frequency of inspections and testing;

ii. Procedures for corrosion control;

iii. A schedule for inspection and testing of release detection and monitoring systems. The schedule must include a list of the release detection and monitoring systems, the identification of the type of inspection and test, and the frequency of inspection and testing;

iv. Procedures for repairs; and

v. Procedures for testing the integrity of the cavern system once every five years following issuance of a permit, or at shorter intervals if applicable.

(1) The method for testing shall be specified in the procedures and can be performed *in situ*, with regulated substance in place, or after a regulated substance is withdrawn. If necessary, the system must be rendered inert to ensure the prevention of explosion or other hazardous conditions.

(b) Upon receiving approval from the Department to operate the system, the owner and operator shall implement the above operation and maintenance plans and any other conditions of the approved permit issued pursuant to N.J.A.C. 7:1F-4.

(c) The owner and operator shall maintain records of the established procedures, repairs, inspections, and testing results demonstrating compliance with the operation and maintenance plans at (a) and (b) above. Such records must be maintained at the site and provide information regarding the previous five years of operation at the system.

7:1F-3.3 Ground water and soil vapor monitoring

(a) Prior to operation, the owner and operator of an underground storage cavern system shall measure background ground water quality at the facility. During operation, the owner and operator shall monitor ground water, quarterly, for any release of a regulated substance.
(b) A ground water sample(s) at the site, at the depth of the underground storage cavern, shall be taken before construction begins, in order to establish baseline water quality. This sample shall be analyzed by a laboratory certified pursuant to N.J.A.C. 7:18 for the regulated substance, pH, specific conductance (SC), dissolved oxygen, turbidity, and for those constituents with specific ground water quality criteria listed in Table 1 of the Appendix at N.J.A.C. 7:9C.

(c) Following construction, before the system is used and during operation, all ground water observation wells shall be monitored quarterly, and analyzed by a New Jersey-certified laboratory, for the regulated substance, pH, specific conductance (SC), dissolved oxygen, turbidity, and any other parameters specified in the permit. If there is an unexplained change in cavern pressure or ground water levels, such that a leak of the regulated substance to ground water from the system is suspected, or if the Department has grounds to suspect a leak, the Department may direct that all ground water observation wells shall be resampled for all, or some, of the baseline water quality constituents. The Department shall specify, in the system's permit, the number, location, and depth of ground water observation wells.

(d) The owner and operator shall additionally monitor, on a continuous basis:

1. The level of ground water immediately above the cavern;

2. The volume of ground water pumped, diverted, or otherwise removed from the cavern for operational purposes. All ground water pumped must be analyzed, treated, and discharged in accordance with all relevant State and Federal regulations; and

3. Soil vapor in the unsaturated soil above the cavern for the presence of the regulated substance.

(e) The owner and operator shall report results of ground water quality, level, volume, and soil vapor monitoring to the Department on a quarterly basis.

1. Monitoring of ground water volumes shall be done in accordance with N.J.A.C. 7:19-

2.14(a)4, or a separate water allocation permit, if required at N.J.A.C. 7:19.

(f) In the event of a release from the system to ground water, the owner and operator must immediately notify the Department's emergency communications center at 1-877 WARN DEP

(1-877-927-6337) and take any immediate action necessary to mitigate the release. The owner and operator shall coordinate and conduct remediation activities, in accordance with Department rules.

(g) The owner and operator shall continue to monitor ground water, in accordance with (c) through (f) above during any time period the cavern system is dormant.

7:1F-3.4 Emergency response plan

(a) The owner and operator of the system shall develop and implement an emergency response plan to protect public health and the environment. The plan must include the following:

1. Procedures for informing the public and local emergency response agencies, including the Department's environmental emergency phone number, 1-877 WARN DEP (1-877-927-6337) in the event of a release from the system;

2. Documentation of first-aid and emergency medical treatment necessary to treat accidental human exposures;

3. Procedures and measures for emergency response, including any procedures and measures to be implemented in the event of a catastrophic release;

4. A list of emergency response equipment available on site, its location, and procedures for its inspection, testing, and maintenance;

5. Procedures to review and update, as necessary, the emergency response plan to reflect changes at the underground storage cavern system and to ensure that employees are informed of any changes;

6. Initial and annual refresher emergency response training for all employees in relevant procedures to implement the emergency response plan; and

7. A procedure to conduct an initial full-scale emergency response exercise for a release scenario from the system prior to commencing operation and a subsequent full-scale exercise at least once every five years.

7:1F-3.5 Release reporting, suspected releases, and investigations

(a) In the event of a release from the system, the owner and operator shall:

1. Implement procedures and measures for emergency response pursuant to 7:1F-3.4(a); and

2. Notify the Department, in accordance with the release reporting requirements at (d) below.

(b) For a suspected release, the owner and operator shall complete an investigation of a suspected release within seven calendar days of the indication of a suspected release. An indication of a suspected release may include, but is not limited to:

1. An air monitoring system indicates a release of a regulated substance;

2. Ground water monitoring conducted, pursuant to N.J.A.C. 7:1F-3.3, indicates that a release of a hazardous substance may have occurred;

3. There is evidence of a hazardous substance or resulting vapors in the soil, in surface water, or in any underground structure or well in the vicinity of the facility;

4. Maintenance or testing procedures conducted, pursuant to N.J.A.C. 7:1F-3.2(a)5, indicate there may be a failure in the cavern or ancillary equipment with a potential to cause a release; or

5. Any other method of discovery of a suspected release.

(c) The owner and operator shall document the suspected release investigation conducted at the facility and make it available for inspection by the Department. The report shall include, but not be limited to, the following:

Date, name(s), and position title(s) of the individual(s) conducting the investigation;
 and

2. A description of the indication of the suspected release and the relevant information used to evaluate and arrive at a conclusion disproving or confirming a release.

(d) Any person, including, but not limited to, the owner or operator, must immediately report a release to the Department's emergency communications center at 1-877 WARN DEP (1-877-927-6337). Such notification shall include the following information:

1. Company name and address;

2. The name, position, and telephone number of the individual providing notification;

3. The time of, or estimated time of, the release and the projected duration;

4. The nature of the release, including the type of regulated substance;

5. As applicable, the quantity, or estimated quantity, of regulated substance released and its offsite impacts;

6. As applicable, weather conditions, including wind direction and speed; and

7. Updates to the above information, as applicable, throughout the duration of the release event.

(e) In the event of a confirmed release from the cavern system, the owner and operator must take immediate action to mitigate the release. The owner and operator shall coordinate and conduct remediation activities, in accordance with Department rules.

(f) Following a release, the owner and operator must investigate the release as soon as reasonably possible, but not later than 48 hours following discovery of the release. If an owner and operator of an underground storage cavern system stores a regulated substance that is an extraordinarily hazardous substance (EHS) as defined pursuant to the Toxic Catastrophe Prevention Act Program rules at N.J.A.C. 7:31-1.5, the EHS accident investigation requirements of that chapter apply.

1. Upon completing the investigation, the owner and operator shall prepare a report to document the release and investigation findings. The report must include the following:

i. Date, time, and location of the release;

ii. Name(s), position title(s) of the investigator(s), and date the investigation of the release began;

iii. A description of the release with all the relevant information. Include the source, identify the regulated substance, amount, and duration of the release, if known or reasonably approximated based on the investigation information;iv. Identify the impacts, if any, of the release on the surrounding environment, community, system, or facility equipment. Include corrective actions necessary to repair the system and equipment and mitigate any impacts to the surroundings;

v. Identify what caused the release, either directly or indirectly, with any factors found to have contributed to and/or caused the release;vi. Recommendations resulting from the investigation to prevent a recurrence; and

vii. The Department may request additional information from the owner and operator regarding the release and investigation findings.

2. The owner and operator shall document the repairs, corrective actions, and recommendations completed following completion of the investigation report and maintain such records with the report.

(g) The owner and operator shall keep documentation of an investigation, performed in accordance with this section and make it available for inspection by the Department for the operational life of the underground storage cavern system.

7:1F-3.6 Prohibitions

(a) No person shall introduce a regulated substance into an underground storage cavern that is not permitted with the Department pursuant to N.J.A.C. 7:1F-4, or where a permit has been revoked, suspended, or denied.

(b) No person shall introduce a regulated substance into an underground storage cavern system, or any of the associated ancillary equipment, known or suspected to be releasing a regulated substance.

(c) No person shall continue to operate an underground storage cavern system, or any of the associated ancillary equipment, known or suspected to be releasing a regulated substance.

7:1F-3.7 Recordkeeping

(a) The owner and operator of an underground storage cavern system shall maintain the records described in this section. The records must be immediately available and provided to the Department upon request.

The owner and operator shall maintain, at the site, the records required at N.J.A.C.
 7:1F-2, 3.1, and 3.5. These records must be maintained for the lifetime of the cavern system.

The owner and operator shall maintain, at the site, the records required at N.J.A.C.
 7:1F-3.2, 3.3, and 3.4. Such records must provide information regarding the previous five years of operation at the system.

7:1F-3.8 Right of entry

The owner and operator of any site where an underground storage cavern system or facility is, or is proposed to be located, including any locations where associated monitoring equipment or records required by this chapter are kept, shall permit the Department to enter for purposes of inspection, sampling, copying, or photographing. Such right of inspection shall not be conditioned upon any action by the Department, except the presentation of appropriate credentials, as requested. Owners, operators, employees, and representatives shall not hinder or delay, and shall, upon request, assist the Department in the performance of all aspects of any inspection.

SUBCHAPTER 4. PERMITTING REQUIREMENTS

7:1F-4.1 General

(a) Prior to construction and operation of a proposed new underground storage cavern system, the owner and operator shall:

1. Obtain approvals from the Department, in accordance with N.J.A.C. 7:1F-4.2;

2. If applicable, obtain a construction permit issued pursuant to the New Jersey Uniform Construction Code, N.J.A.C. 5:23, prior to the construction or modification of the system;

and

3. If applicable, obtain approvals from the Department of Labor and Workforce

Development.

(b) By (five years of the effective date of this rulemaking), the owner and operator of an existing underground storage cavern system in operation as of (the effective date of this rulemaking) shall submit to the Department a permit renewal application and include the following materials:

1. A map and diagrams, pursuant to N.J.A.C. 7:1F-3.1(a);

2. Plans for operation and maintenance of the cavern system, pursuant to N.J.A.C. 7:1F-

3.2;

3. An emergency response plan, pursuant to N.J.A.C. 7:1F-3.4;

4. A decommissioning plan and financial responsibility, pursuant to N.J.A.C. 7:1F-6.1(a) and 6.2; and

5. An integrity test of the system conducted, in accordance with N.J.A.C. 7:1F-3.2(a)5v.

(c) The Department shall review the materials required pursuant to (b) above, in accordance with N.J.A.C. 7:1F-4.2(i) and (j). Any existing permit(s) previously issued to owners and operators of underground storage cavern systems shall remain in effect until the Department completes the

review and either approves an updated permit or denies the existing permit pursuant to N.J.A.C. 7:1F-4.7. Upon approval and issuance of a new permit to operate, the owner and operator shall thereafter renew its permit, in accordance with N.J.A.C. 7:1F-4.6.

7:1F-4.2 Permit application

(a) All permit applications must be submitted on forms provided by the Department obtained from the address at N.J.A.C. 7:1F-1.10 and contain the information specified at (b) below. The permit application must be accurately completed, signed, dated, and returned to the address provided at N.J.A.C. 7:1F-1.10.

(b) Prior to beginning construction activities and in addition to the requirements pursuant to (a) above, an owner and operator of a proposed underground storage cavern system shall submit with its permit application:

- 1. A feasibility study, completed in accordance with N.J.A.C. 7:1F-2.1;
- 2. Design specifications, in accordance with N.J.A.C. 7:1F-2.2(a);
- 3. A process hazard analysis, in accordance with N.J.A.C. 7:1F-2.3;

4. Assessments of environmental, health, and climate change impacts, in accordance with N.J.A.C. 7:1F-2.4; and

5. Documentation demonstrating the competency and independence of the third party conducting an evaluation of the application materials at (b)1, 2, and 3 above, in accordance with N.J.A.C. 7:1F-2.5(b) and (d).

(c) Upon receipt of the permit application, the Department shall make an administrative review of the application materials required at (a) and (b) above, as follows:

1. If the application does not contain all documents and information required at (a) and (b) above, the Department shall, within 30 days of receipt of the application, advise the applicant, in writing, as to the additional information required to make the application administratively complete and the date by which the additional information must be received by the Department. The Department may return the application with the written notification to the applicant. A determination of incompleteness shall stop any review and shall stay the time limitations set forth at (d) below.

2. If the application contains all documents and information required pursuant to (a) and(b) above and is determined to be administratively complete, the Department, within 30days of receipt of the application, shall so advise the applicant in writing.

(d) After the Department declares the application materials required pursuant to (a) and (b) above are administratively complete, the owner and operator shall retain a third party, in accordance with N.J.A.C. 7:1F-2.5, to conduct and complete an evaluation report of the application materials submitted pursuant to (a) and (b)1, 2, and 3 above. The third party shall submit its evaluation report directly to the Department at the address provided at N.J.A.C. 7:1F-1.10, for technical review. Within 180 days of receiving the third-party evaluation report, the Department shall review the application materials required at (a) and (b) above and the evaluation report in accordance with the following:

1. If the materials required pursuant to (b) above and the evaluation report do not contain sufficient technical information or if the technical information requires clarification, the Department shall so advise the owner and operator, in writing, and provide a list of deficiencies and additional or clarifying information required to make the application

complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department may:

- i. Extend the date by which the applicant must provide additional or clarifying information; or
- ii. Deny the application pursuant to N.J.A.C. 7:1F-4.7.

2. The third party shall evaluate any changes to the materials submitted in accordance with (b)1, 2, and 3 above, as appropriate. The third party shall submit its additional evaluation to the Department.

3. If the materials, required pursuant to (b) above, and the evaluation report contain sufficient technical information and the proposed system conforms with the protections and requirements of the Act and this chapter, the Department shall prepare a draft approval to construct and bill the owner and operator for the Department review activity fees, in accordance with N.J.A.C. 7:1F-1.9(g).

(e) The Department shall publish, in the DEP Bulletin, a notice of the receipt of the permit application, and shall also publish notice upon each significant action or determination the Department makes regarding an application under review. The notice shall include:

- 1. The name of the owner and operator of the system;
- 2. The permit application number;
- 3. The location of the proposed system or facility; and

4. The date and description of the Department's action or determination.

(f) Upon publication of the notice in the DEP Bulletin regarding a draft approval to construct, the Department shall hold a public hearing, no sooner than 15 days after publication of the notice. A

comment period will also be held open for a period of 30 days after publication in the DEP Bulletin. The Department, in its discretion, may extend the comment period for an additional 15 days beyond the initial 30-day comment period.

(g) Upon completion of a comment period for a draft approval to construct, the Department shall:

1. Issue an approval for construction with any condition(s) it deems appropriate;

2. Require additional or clarifying information from the owner and operator if information received during the comment period necessitates substantial changes to the application or additional review by the Department; or

3. Deny the application pursuant to N.J.A.C. 7:1F-4.7.

(h) Prior to beginning any operation activity, and in addition to the requirements at (a) and (b) above, the owner and operator of a proposed system shall submit:

1. As-built specifications and mechanical integrity testing results, in accordance with

N.J.A.C. 7:1F-3.1;

- 2. An operation and maintenance plan, in accordance with N.J.A.C. 7:1F-3.2;
- 3. An emergency response plan, developed in accordance with N.J.A.C. 7:1F-3.4;
- 4. A decommissioning plan, in accordance with N.J.A.C. 7:1F-6; and
- 5. Payment of the fee for the Department's services, review, and processing of the application for approval to construct.

(i) Prior to approving a permit to operate the system, the Department shall make an administrative review of the application materials required pursuant to (h) above, as follows:

1. If the application does not contain all documents and information required pursuant to

(h) above, the Department shall, within 30 days of receipt of the application, either return

the application or advise the applicant, in writing, as to the additional information required to make the application administratively complete and the date by which the additional information must be received by the Department. If an application is returned, the owner and operator shall be advised, in writing, as to the additional information required to make the application complete.

2. If the application contains all documents and information required pursuant to (h) above and is determined to be administratively complete, the Department, within 30 days of receipt of the application, shall so advise the owner and operator in writing.

(j) After the Department declares the application materials required pursuant to (h) above are administratively complete, the Department shall review within 90 days the application materials required pursuant to (h) above, in accordance with the following:

1. If the materials required at (h) above do not contain sufficient technical information or if the technical information requires clarification, the Department shall so advise the owner and operator, in writing, and provide a list of deficiencies and additional or clarifying information required to make the application complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department may:

i. Extend the date by which the applicant must provide additional or clarifying information; or

ii. Deny the application pursuant to N.J.A.C. 7:1F-4.7.

2. If the materials required pursuant to (h) above are determined by the Department to contain sufficient technical information and the constructed cavern system conforms with

the protections and requirements of the Act and this chapter, and payment of the applicable fee assessed pursuant to N.J.A.C. 7:1F-1.9(g) is made, the Department shall issue an approved permit to operate the cavern, with any conditions it deems appropriate. The Department shall publish notice in the DEP Bulletin, in accordance with (e) above.
(k) The owner and operator of a system shall notify and submit to the Department any change or update to the information submitted, in accordance with (h) above prior to the Department's

issuance of the approved permit to operate.

7:1F-4.3 Public access to permit information

All completed permit application forms, as well as documented information pertaining to the permit, shall be considered public records pursuant to N.J.S.A. 47:1A-1 et seq, except as set forth at N.J.A.C. 7:1D-3, Non-Public Records.

7:1F-4.4 Availability of permit

(a) The owner and operator of an underground storage cavern system for which the Department has issued a permit shall make the permit available for inspection by an authorized local, State, or Federal representative.

(b) The owner and operator of an underground storage cavern system for which the Department has issued a permit shall maintain one set of approved plans at the facility site during the course of the permitted activity and shall make the approved plans available for inspection by any authorized local, State, or Federal representative.

7:1F-4.5 Permit expiration

(a) Unless renewed pursuant to N.J.A.C. 7:1F-4.6, any permit to operate the system issued pursuant to this chapter shall expire after five years from the date of issuance.

(b) Any permit or approval issued pursuant to this chapter shall expire if the approved activity authorized by the permit is not commenced within 12 months after the effective date of the permit or approval.

1. In the event the approved activity has not been initiated within 12 months of issuance, the owner and operator may request an extension. The request for an extension shall be provided, in writing, to the address at N.J.A.C. 7:1F-1.10 and include the following:

i. The name of the facility and permit identification number;

ii. The owner's and operator's contact information; and

iii. The duration of extension being requested along with any reasons or justification for the request.

2. Upon receipt of an extension request, the Department will either approve the extension, specifying a new expiration date and publishing notice in the DEP Bulletin, or deny the request.

(c) For purposes of this section, a system shall be considered abandoned if the owner and operator does not timely renew its permit, in accordance with N.J.A.C. 7:1F-4.6.

7:1F-4.6 Permit renewal

(a) A permit for an underground storage cavern system shall expire five years from the date of its issuance.

(b) No less than 120 days prior to expiration date of the permit, the owner and operator of a system shall submit to the Department a permit renewal application, the materials required pursuant to N.J.A.C. 7:1F-3.2 and 3.4 and indicate to the Department any updates to the information since a prior issuance. The Department shall review the materials in accordance with N.J.A.C. 7:1F-4.2(h) through (j).

(c) A current permit for which a complete renewal application is submitted to the Department at least 120 days prior to the expiration date shall remain in effect until the Department grants or denies the renewal application.

7:1F-4.7 Grounds for denial, suspension, or revocation of a permit

(a) The Department may deny the issuance of a permit under this subchapter, if:

- 1. The permit application is incomplete, including submission of all applicable fees and financial assurance, or contains false, inaccurate, or insufficient information, or is illegible; or
- 2. The owner or operator of an underground storage cavern system fails to comply with any requirement of the Act or this chapter.

(b) The Department may suspend a permit if:

1. The owner or operator of an underground storage cavern system violates any requirements of the permit or provisions of this chapter;

2. The owner or operator of an underground storage cavern system violates a statute, rule, or order of the Department; or

3. The owner or operator of an underground storage cavern system falsifies, or makes false representations to the Department on, any report, record, application requirement, or other permit requirement.

(c) The Department may revoke a permit, if:

1. The permit application contains false, inaccurate, or insufficient information;

2. An authorized representative is denied access to the site;

3. The owner or operator of an underground storage cavern system fails to comply with any requirement of the permit or provisions of the Act or this chapter; or

4. The owner or operator of an underground storage cavern system is performing, or has authorized, an activity that is not in compliance with this chapter.

(d) The Department shall inform the owner and operator of an underground storage cavern system of the denial of issuance, suspension, or revocation of a permit by notice. The notice shall include either specific grounds for the denial of issuance as set forth at (a) above, specific grounds for suspension of a permit as set forth at (b) above, or specific grounds for revocation as set forth at (c) above. The Department shall provide the notice by certified mail or by personal service.

(e) The owner and operator of an underground storage cavern system that receives notice from the Department denying, suspending, or revoking a permit shall neither begin any activity proposed in its permit application nor continue any ongoing permitted activity.

(f) The duration of a suspension is at the discretion of the Department and will be determined according to the severity of the violation. The Department will not reinstate a suspended permit until:

1. The entire suspension period has expired; and

2. The reasons for the suspension are eliminated and corrected.

(g) The applicant who believes itself to be aggrieved, with respect to decisions made by the Department regarding any final permit or application denial may contest the decision and request a contested case hearing pursuant to N.J.A.C. 7:1F-7.

7:1F-4.8 Permit transfer

(a) In the event of the transfer of the underground storage cavern system to a new owner or operator, a change in ownership, or a change in name of an owner or operator, the new owner and/or new operator shall, before beginning or assuming control of operations of the system, submit written correspondence acknowledging and agreeing to operate the system, in accordance with this chapter, the current permit for the system, as well as the plans submitted pursuant to N.J.A.C. 7:1F-4.2(h).

(b) A new owner and operator shall notify the Department of the transfer in ownership and adopt an existing permit by submitting the permit application form, as provided for at N.J.A.C. 7:1F-4.2(a) identifying the new owner and operator information.

(c) In the event other changes or updates are required to the system's records or financial responsibility assurance mechanism, the new owner and operator shall identify and include that information in the correspondence to the Department at the address provided at N.J.A.C. 7:1F-1.10.

(d) The Department will review the information submitted pursuant to this section and provide a written correspondence acknowledging the change to the new owner and operator.

SUBCHAPTER 5. MODIFICATIONS

7:1F-5.1 Minor modifications

(a) An owner and operator of an underground storage cavern system shall obtain approval from the Department prior to performing a minor modification.

(b) An owner and operator shall submit a written request for a minor modification and any information required pursuant to this chapter that is related to the proposed minor modification.(c) Prior to approving a minor modification, the Department shall make an administrative review of the materials required pursuant to (b) above, as follows:

1. If the materials submitted are incomplete or do not contain the information required pursuant to (b) above, the Department shall, within 30 days of receipt of the materials, advise the owner and operator, in writing, as to the additional information required and the date by which the additional information must be received by the Department.

2. If the materials are complete, contain all of the information required pursuant to (b) above, and are determined to be administratively complete, the Department, within 30 days of receipt of the materials, shall so advise the owner and operator in writing.

(d) After the Department declares the materials submitted pursuant to (b) above are administratively complete, the Department shall review the materials within 90 days and, in accordance with the following:

1. If the materials submitted pursuant to (b) above do not contain sufficient technical information or if the technical information requires clarification, the Department shall so advise the owner and operator, in writing, and provide a list of deficiencies and additional

or clarifying information required to make the application complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department may:

i. Extend the date by which the owner and operator must provide additional or clarifying information; or

ii. Deny the application pursuant to N.J.A.C. 7:1F-4.7.

2. If the materials required pursuant to (b) above contain sufficient technical information, the Department shall review the modification request to determine if the technical information and changes to the system conforms with the protections and requirements of the Act and this chapter. Following this review, the Department shall assess a fee, in accordance with N.J.A.C. 7:1F-1.9(g). Once payment of the fee is received the Department will either approve the modification with any conditions it deems appropriate and publish notice in the DEP Bulletin or deny the request.

(e) Upon completion of the minor modification, the owner and operator shall update any records and documentation affected by the change and conduct training of personnel, as appropriate.
(f) An owner and operator of an underground storage cavern system storing a substance that is regulated pursuant to the Toxic Catastrophe Prevention Act rules shall also comply with the requirements for management of change at N.J.A.C. 7:31-4.6.

7:1F-5.2 Major modifications

(a) Prior to performing a major modification, an owner and operator of an underground storage cavern system shall submit a written request for major modification and the following information to the Department:

1. An updated feasibility study completed, in accordance with N.J.A.C. 7:1F-2.1;

2. Updated design specifications, in accordance with N.J.A.C. 7:1F-2.2(a);

3. Documentation demonstrating the competency and independence of the third party conducting an evaluation of the materials at (a)1 and 2 above, in accordance with N.J.A.C. 7:1F-2.5;

4. Updated documents required, pursuant to N.J.A.C. 7:1F-3.1(a), (b), and (c);

5. An updated operation and maintenance plan, in accordance with N.J.A.C. 7:1F-3.2; and

6. An updated emergency response plan, in accordance with N.J.A.C. 7:1F-3.4.

(b) The Department shall make an administrative review of the information required at (a) above, as follows:

1. If the information submitted is incomplete or does not contain the information required pursuant to (a) above, the Department shall, within 30 days of receipt of the information, advise the owner and operator, in writing, as to the additional information required to make the submittal administratively complete and the date by which the additional information must be received by the Department.

2. If the request contains all documents and information required pursuant to (a) above and is determined to be administratively complete, the Department, within 30 days of receipt of the request, shall so advise the applicant in writing.

(c) After the Department declares the information required pursuant to (a) above to be administratively complete, the owner and operator shall retain a third party, in accordance with N.J.A.C. 7:1F-2.5, to conduct and complete an evaluation report of the information submitted pursuant to (a) above. The third party shall submit its evaluation report directly to the Department for technical review. Within 180 days, the Department shall review the submitted information required pursuant to (a) above and the evaluation report, in accordance with the following:

1. If the information required at (a) above and the evaluation report do not contain sufficient technical information or if the information requires clarification, the Department shall so advise the owner and operator, in writing, and provide a list of deficiencies and additional or clarifying information required to make the request complete. If the requested additional or clarifying information is not submitted to the Department within 30 days of receiving the notice of deficiency, the Department may:

i. Extend the date by which the requestor must provide additional or clarifying information; or

ii. Deny the modification pursuant to N.J.A.C. 7:1F-4.7.

2. The third party shall evaluate any changes to the information submitted pursuant to (b) above, as appropriate. The third party shall submit its evaluation of the updated information to the Department.

3. If the information required pursuant to (a) above and the evaluation report contain sufficient technical information and the changes to the cavern system conform with the protections and requirements of the Act and this chapter, the Department shall prepare a

draft approval of the major modification and bill the owner and operator for the Department review activity fees, in accordance with N.J.A.C. 7:1F-1.9(g).

(d) The Department shall publish, in the DEP Bulletin, notice of the receipt of the request for major modification, and shall also publish notice of each significant action or determination the Department makes regarding an application under review. The notice shall include:

- 1. The name of the owner and operator of the system;
- 2. The permit application number;
- 3. The location of the proposed system or facility; and
- 4. The date and description of the Department's action or determination.

(e) Upon publication, in the DEP Bulletin, of a notice of a draft approval of a major

modification, the Department shall hold a public hearing no sooner than 15 days after publication

of the notice. A comment period will be held open for a period of 30 days after the public hearing.

(f) Upon completion of a comment period for a draft approval of a major modification pursuant to (e) above, the Department shall:

- 1. Issue an approval with any conditions it deems appropriate;
- 2. Require additional or clarifying information from the owner and operator if information received during the comment period necessitates substantial changes to the request or additional review by the Department; or
- 3. Deny the request pursuant to N.J.A.C. 7:1F-4.7.

7:1F-5.3 Dormancy

(a) The owner and operator of an underground storage cavern system may place the cavern into dormant status upon approval of a dormancy plan by the Department. The plan must:

1. Provide ventilation and/or other cleaning procedures after a regulated substance is withdrawn. If necessary, the system must be rendered inert to ensure the prevention of explosion or other hazardous conditions.

2. Provide procedures that ensure mechanical integrity is maintained.

3. Provide monitoring procedures to be followed for the duration of the dormant status, including ground water monitoring, air monitoring, and monitoring of temperature and pressure in the cavern.

4. Establish the duration of the dormancy. The owner and operator shall notify the Department, in writing, of any change in duration.

(b) The owner and operator shall submit the dormancy plan to the Department at least 30 days prior to placing the system into a dormant status.

 Upon receipt of a dormancy plan, the Department shall conduct a review, bill the owner and operator for the Department review activity fees, in accordance with N.J.A.C.
 7:1F-1.9(g), and issue an approval establishing conditions consistent with the provided plan and this chapter.

(c) The owner and operator shall not place the system into dormant status until receiving written approval of the dormancy plan.

(d) The owner and operator shall continue to renew its permit, in accordance with N.J.A.C. 7:1F-4.6, for the duration of the dormancy.

SUBCHAPTER 6. DECOMMISSIONING

7:1F-6.1 Decommissioning requirements for an underground storage cavern system(a) As a condition of any permit issued pursuant to N.J.A.C. 7:1F-4 and prior to beginning operation, the owner and operator of an underground storage cavern system shall submit a comprehensive plan for decommissioning the system for approval by the Department.

1. A decommissioning plan shall establish a schedule for the monitoring of ground water and soil vapor to be conducted annually for five years, at a minimum, following the date of decommissioning; or as otherwise established in the Department approved decommissioning plan.

2. The decommissioning plan shall include financial responsibility as required at

N.J.A.C. 7:1F-6.2.

(b) The owner and operator shall notify the Department 30 days prior to the date of decommissioning.

(c) Any system that is decommissioned must be thoroughly ventilated, or otherwise cleaned and sealed, in a manner acceptable to the Department after operation has ceased.

(d) The decommissioning plan must be certified by a licensed engineer in accordance with accepted industry standards.

(e) An owner and operator of a decommissioned system must conduct testing pursuant to N.J.A.C. 7:1F-3.1(b)1 prior to applying for a permit to initiate or resume operations at the cavern system.

7:1F-6.2 Financial responsibility

(a) As part of a decommissioning plan submitted pursuant to N.J.A.C. 7:1F-6.1, the owner or operator of an underground storage cavern system shall demonstrate and maintain a financial responsibility assurance mechanism for decommissioning activities in the amount of at least \$1 million per permit. The amount determined necessary is based on the scope of the decommissioning plan. If the owner or operator demonstrates that an amount less than \$1 million is sufficient to protect the environment and public health, safety, and welfare, the Department may accept evidence of financial responsibility in such lesser amount. Decommissioning activities includes any activity conducted in accordance with the decommissioning plan and/or pursuant to N.J.A.C. 7:1F-6.1.

(b) In determining the sufficiency of the amount of financial responsibility, the Department will consider factors including, without limitation, the nature and quantity of regulated substance that is present at the system; estimated costs, with inflation considerations, to evacuate substances and residuals, confirm cavern integrity, seal wells, address ground water intrusion, long-term maintenance considerations; and other similar factors.

(c) The demonstration of sufficient financial responsibility does not limit the liability of the owner and operator.

(d) Financial responsibility may be demonstrated by any one, or by any combination, of the following:

- 1. Financial test of self-insurance;
- 2. Guarantee;
- 3. Insurance or risk retention group coverage;
- 4. Surety bond; or

5. Letter of credit.

(e) An owner or operator may use self-insurance in combination with a guarantee only if, for the purposes of meeting the requirements of the financial test under this section, the financial statements of the owner or operator are not consolidated with the financial statements of the guarantor.

(f) To pass the financial test of self-insurance, the owner or operator or guarantor must meet the criteria at (f)1 or 2 below based on the year-end financial statements of the latest completed financial reporting year. The owner and operator must maintain, onsite, a letter signed by the chief financial officer worded as specified in section A.1 of Appendix A, incorporated herein by reference. This letter shall be updated within 120 days of the close of each financial reporting year.

1. The owner or operator or guarantor must have a tangible net worth of at least \$10 million, and the owner or operator or guarantor must:

i. Have a tangible net worth of at least 10 times the required aggregate amount at
(a) above plus any other liability coverage for which the owner or operator is
using a financial test to demonstrate financial responsibility to the State;
ii. Either file financial statements annually with the U.S. Securities and Exchange
Commission, the Energy Information Administration, the Rural Utilities Services,
or the Board of Public Utilities; or report annually the firm's tangible net worth to
Dun and Bradstreet, and Dun and Bradstreet must have assigned the firm a

iii. Have year-end financial statements that, if independently audited, do notinclude an adverse auditor's opinion, a disclaimer of opinion, or a "going concern"qualification;

2. The owner or operator or guarantor must have a bond rating of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's, or net working capital of at least six times the required amount at (a) above plus any other liability coverage being provided by a financial test, and the owner or operator, or the guarantor, must have:

i. A tangible net worth of at least six times the applicable amount at (a) above;ii. U.S. assets that are at least 90 percent of total assets or at least six times the required amount at (a) above plus any other liability coverage being provided by a financial test; and

iii. Fiscal year-end financial statements filed with the U.S. Securities and Exchange Commission, the Energy Information Administration, Rural Utilities Services, or the New Jersey Board of Public Utilities, or a special report by an independent certified public accountant stating that the data specified in the letter from the chief financial officer have been compared to the data in the latest financial statements and that no matters have come to his or her attention that cause him or her to believe that the data should be adjusted.

(g) If an owner or operator, or guarantor, using the financial test to provide financial responsibility finds that it no longer meets the requirements of the financial test based on the

year-end financial statements, the owner or operator must obtain alternative coverage within 150 days of the end of the year for which financial statements have been prepared.

(h) The Department may require reports of financial condition at any time from the owner or operator, or guarantor. If the Department finds, on the basis of such reports or other information, that the owner or operator, or guarantor, no longer meets the financial test requirements at (f) above, the owner or operator shall obtain alternate coverage within 30 days after notification of such a finding.

(i) If the owner or operator fails to obtain alternate coverage within 150 days of finding that it no longer meets the requirements of the financial test based on the year-end financial statements, or within 30 days of notification by the Department that it no longer meets the requirements of the financial test, the owner or operator shall notify the Department of such failure within 10 days.(j) To demonstrate financial responsibility through a guarantee:

1. Within 120 days of the close of each financial reporting year, the guarantor must demonstrate that it meets the financial test criteria set forth at (f) above by completing the letter from the chief financial officer as specified in section A.1 of the chapter Appendix and must deliver the letter to the owner and operator and the Department. If the guarantor fails to meet the requirements at (f) above, within 120 days of the end of the financial reporting year the guarantor must send by certified mail, before cancellation or nonrenewal of the guarantee, notice to the owner and operator and the Department. If the Department notifies the guarantor that he or she no longer meet the requirements at (f) above, the guarantor must notify the owner and operator within 10 days of receiving such notification, from the Department. In both cases, the guarantee will be deemed as

terminated, no less than 120 days after the date the owner and operator receives the notification or 120 days after the date the Department receives the notification, whichever is later, as evidenced by the return receipt. The owner or operator must obtain alternate coverage within 30 days; and

2. The guarantee must be worded as specified in section A.2 of the chapter Appendix, and a copy of the guarantee maintained at the facility at all times.

(k) To demonstrate financial responsibility through liability insurance:

1. Such insurance must be obtained from a qualified insurer or risk retention group. It may be in the form of a separate insurance policy or an endorsement to an existing policy;

2. An existing insurance policy must be amended by an endorsement worded as specified in section A.3(1) of the chapter Appendix or a separate insurance policy must be evidenced by a certificate of insurance worded as specified in section A.3(2) of the chapter Appendix. A copy of this endorsement or certificate must be maintained at the facility at all times;

3. The provisions addressing cancellation or any other termination of the liability insurance by the insurer or group, except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice; or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of a

minimum of 10 days after the date on which the insured receives the written notice; or 10 days after the date on which the Department receives the written notice, whichever is later; and

4. Within 60 days of receipt of a notice of cancellation or other termination, the owner or operator shall provide alternative financial assurance, as specified in this section.

(l) To demonstrate financial responsibility through a surety bond:

1. The surety company issuing the bond must be among those listed as acceptable sureties on Federal bonds in the latest Circular 570 of the U.S. Department of the Treasury;

2. The surety bond must be worded as specified in section A.4 of the chapter Appendix, and a copy of the surety bond maintained at the facility at all times;

3. Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. In all cases, the surety's liability is limited to the penal sums;

4. The owner or operator who uses a surety bond to meet the requirements at (a) above must establish a standby trust fund when the surety bond is acquired. The trustee shall be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. Under the terms of the bond, all amounts paid by the surety under the bond will be deposited directly into the standby trust fund, in accordance with instructions from the Department;

5. The surety(ies) may cancel the bond by sending written notice of cancellation by certified mail to the principal and the Department; provided, however, that the cancellation shall not occur during the 120 days beginning on the date of receipt of the

notice of cancellation by the principal or the date of receipt of the notice of cancellation by the Department, whichever is later, as evidenced by the return receipt; and 6. Within 60 days of receipt of a notice of cancellation or other termination, the owner or operator shall provide alternative financial assurance, as specified in this section.

(m) To demonstrate financial responsibility through a letter of credit:

1. The issuing agency must be an entity that has the authority to issue letters of credit in this State and whose letter-of-credit operations are regulated and examined by a State agency;

2. The letter of credit must be worded as specified in section A.5 of Appendix A, and a copy of the letter of credit maintained at the facility at all times;

3. The owner or operator who uses a letter of credit to meet the requirements at (a) above must establish a standby trust fund when the letter of credit is acquired. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Department will be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Department;

4. The letter of credit must be irrevocable with a term specified by the issuing institution and must provide that credit be automatically renewed for the same term as the original term, unless, at least 120 days before the current expiration date, the issuing institution notifies the owner or operator and the Department, by certified mail, of its decision not to renew the letter of credit. Under the terms of the letter of credit, the 120 days will begin

on the date when the owner and operator receives the notice or on the date when the Department receives the notice, whichever is later, as evidenced by the return receipt; and 5. Within 60 days of receipt of a notice of cancellation or other termination, the owner and operator shall provide alternative financial assurance as specified in this section.

(n) Within 10 days after commencement of a voluntary or involuntary proceeding under Title 11

(Bankruptcy), U.S. Code:

1. Naming an owner or operator as debtor, the owner and operator shall notify the Department by certified mail of such commencement; or

2. Naming the provider of financial assurance as debtor, the provider shall notify the owner or operator by certified mail of such commencement, and the owner and operator shall then notify the Department.

(o) An owner and operator will be deemed to be without the required demonstration of financial responsibility in the event of commencement of bankruptcy or other incapacity of his or her provider of financial assurance. Within 30 days after receiving notice of such an event, the owner or operator shall submit to the Department an alternate demonstration of financial responsibility.

SUBCHAPTER 7. VIOLATIONS, REMEDIES, AND ADJUDICATORY HEARING PROCEDURES

7:1F-7.1 Violations

(a) Upon a finding that the owner or operator of an underground storage cavern system has failed to comply with any requirement of the Act or this chapter, the Department may:

1. Deny, suspend, or revoke the issuance of any approval or permit;

2. Order compliance with any violation of the Act, regulatory provision, or permit condition;

3. Commence a civil action in the Superior Court for a restraining order and an injunction against any violation of the Act, regulatory provision, or condition of a Department approval or permit; and/or

4. Pursue any other remedy available by law.

(b) Any person who fails to comply or otherwise violates N.J.S.A. 58:10-35.1, 35.2, 35.3, or 35.4, any rule or regulation adopted pursuant to the Act, or any permit issued pursuant to the Act

shall be guilty of a crime of the fourth degree.

(c) The Department has the power, as enumerated at N.J.S.A. 13:1D-9, and consistent with constitutional requirements, to enter and inspect any property, facility, building, premises, site, or place for the purpose of investigating an actual or suspected source of pollution of the environment and inspections, collecting samples, copying or photocopying documents or records, and for otherwise ascertaining compliance or noncompliance with any laws, permits, orders, codes, rules, and regulations of the Department.

1. Each applicant or permittee shall provide, upon request of the Department, any information required to determine compliance with the provisions of the Act, this chapter, or any permit or order issued pursuant thereto.

7:1F-7.2 Scope

(a) This subchapter establishes procedures governing the Department's issuance of civil administrative orders and commencement of a civil action for violation(s) of any provisions of the Act, this chapter, or any order, permit, or operating authority issued pursuant thereto. This subchapter shall also govern the procedures for requesting an adjudicatory hearing on an administrative order, or a denial, revocation, or approval of a permit.

(b) Nothing in this subchapter is intended to affect the Department's authority to revoke or suspend any permit, or other operating authority issued under the Act. Specifically, the Department may revoke or suspend a permit, or other operating authority, without regard to whether an administrative order has been or will be issued pursuant to this subchapter or any other Department statute.

(c) Each violation of any provision of the Act or this chapter, or violation of any administrative order, permit, or other operating authority promulgated or issued pursuant thereto shall constitute a separate and distinct offense.

(d) Each day during which a violation continues shall constitute an additional, separate, and distinct offense.

7:1F-7.3 Procedures for issuance of administrative orders

(a) Whenever, on the basis of available information, the Department finds a person in violation of any provision of the Act, or any rule promulgated, or any administrative order, permit, or other operating authority issued pursuant to the Act, the Department may issue an administrative order:

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1. Specifying each provision of the applicable Act, rule, plan, order, or permit that has been, or is being, violated;

- 2. Citing the action that constituted the violation;
- 3. Requiring compliance with the provision, or provisions, violated; and
- 4. Providing notice of the right to a hearing on the matters contained in the order.

7:1F-7.4 Adjudicatory hearing requests and procedures

(a) A person may request a hearing to contest a denial, suspension, or revocation of a permit or

approval, pursuant to N.J.A.C. 7:1F-4.7, an administrative order issued pursuant to N.J.A.C.

7:1F-7.3, or a certified notice denying a confidentiality claim pursuant to N.J.A.C. 7:1F-8.

(b) Within 20 days calendar days after receiving the document for which a hearing is sought, the person requesting a hearing shall send a completed Adjudicatory Hearing Request Checklist and a written request for a hearing to:

1. Office of Legal Affairs

ATTENTION: Adjudicatory Hearing Requests

Department of Environmental Protection

Mail Code 401-04L

PO Box 402

401 East State Street, 7th Fl.

Trenton, New Jersey 08625-0402

2. New Jersey Department of Environmental Protection

Bureau of Release Prevention Mail Code 22-03D 401 East State Street PO Box 420 Trenton, New Jersey 08625-0420

(c) The person requesting a hearing shall include with the completed Adjudicatory Hearing Request Checklist the following information:

1. The name, address, telephone number, and email address of:

i. The person the Department named in the document for which the hearing is sought;

ii. A contact person or authorized representative, if the person the Department named in the document is not an individual; and

iii. The person's attorney, if any.

- 2. The date the person received the document for which a hearing is sought;
- 3. A copy of the document for which a hearing is sought, pursuant to (a) above;
- 4. An admission, a denial, or an averment of insufficient knowledge or information of the findings listed in the document being contested, as follows:

i. If the person is without knowledge or information sufficient to form a belief as to the truth of a specific finding, the person shall so state and this shall have the effect of a denial;

ii. If a person intends to deny any finding or portion of the finding in the document:

(1) The person shall identify the finding or portion of the finding that is denied. A general denial of some or all of the findings shall have the effect of an admission of each finding generally denied;

(2) For each finding or portion of a finding the person denies, the person shall explain the factual and legal basis of the denial. Any failure to provide a factual and legal basis for a denial shall have the effect of an admission of the finding; and

(3) The person shall ensure that each denial fairly meets the substance of the finding or portion of the finding denied. A denial that does not meet the substance of the finding denied shall have the effect of an admission of the finding; and

iii. If a person fails to either admit or deny any specific finding or portion of a finding, this shall have the effect of an admission of that finding.

5. A list of all factual and legal issues that the person is contesting, with each defense position stated in short and plain terms;

6. Documents or information supporting the request for a hearing, and specific reference to, or copies of, other written documents relied on to support the request;

7. An estimate of the time required for the hearing in days and/or hours; and

8. A request, if necessary, for a barrier-free hearing location for physically disabled persons.

(d) If the Department does not receive the request for a hearing within the time prescribed at (b) above, or if the request does not include the information required at (c) above, the Department shall deny the request for a hearing.

(e) An adjudicatory hearing shall be conducted in accordance with the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., and 52:14F-1 et seq., and the Uniform Administrative Procedure Rules, N.J.A.C. 1:1.

(f) Nothing in this section shall be construed to provide a right to an adjudicatory hearing in contravention of N.J.S.A. 52:14B-3.1, 3.2, or 3.3.

7:1F-7.5 Civil action

(a) Whenever, on the basis of available information, the Department finds a person in violation of the Act, or any rule promulgated, or any administrative order, permit, or other operating authority issued pursuant to the Act and this chapter, the Department may institute a civil action in Superior Court for appropriate relief. Such relief may include, singly, or in combination:

1. A temporary or permanent injunction;

2. Assessment against the violator for the costs of any investigation, inspection, or monitoring survey that led to the establishment of the violation, and for the reasonable costs of preparing and bringing legal action pursuant to this section;

3. Assessment against the violator for any costs incurred by the State in removing, correcting, or terminating the adverse effects upon the environment resulting from any unauthorized regulated activity for which legal action pursuant to this section may have been brought;

4. Assessment against the violator for compensatory damages for any loss or destruction of wildlife, fish, or aquatic life, plants, and for any other actual damages caused by an unauthorized regulated activity. Assessments pursuant to this section shall be paid to the State Treasurer, except that compensatory damages shall be paid by specific order of the court to any persons who have been aggrieved by the unauthorized regulated activity; and/or

5. A requirement that the violator restore or rehabilitate the site of the violation to the maximum extent practicable and feasible, or in the event that restoration of the site of the violation is not practicable and feasible, provide for off-site restoration alternatives, as approved by the Department.

SUBCHAPTER 8. CONFIDENTIALITY

7:1F-8.1 Scope and applicability

(a) This subchapter constitutes the rules for the assertion, substantiation, review, and appeal of confidentiality claims and establishes the principles, guidelines, and procedures governing the internal management and disclosure of confidential information provided to the Department pursuant to this chapter.

(b) An owner and operator who asserts a confidentiality claim shall follow the procedures set forth in this subchapter.

(c) The Department, its employees, and its agents shall strictly adhere to the procedures established by this subchapter for maintaining the confidentiality and security of confidential information and for the disclosure of confidential information.

7:1F-8.2 General provisions

(a) All information collected, or originated, by the Department in connection with the Act or this chapter shall be made available to the public, in accordance with N.J.S.A. 47:1A-1 et seq., except as otherwise provided in this subchapter.

(b) The Department shall protect from disclosure to the public any security information and any confidential information obtained pursuant to the Act or this chapter.

(c) Confidential information supplied to the Department will be disclosed only to the employees or agents of the Department and only on a need-to-know basis for the purposes of carrying out or enforcing the provisions of the Act or this chapter, or for use in civil or criminal proceedings, if so ordered by a court.

(d) An owner and operator may file a claim with the Department to withhold from public disclosure confidential information required to be submitted to the Department at any time such information is required to be submitted to the Department. All such claims and any required substantiation shall be submitted, in writing, on forms provided by the Department, in accordance with N.J.A.C. 7:1F-8.4. If the space provided for responses on Department forms is not sufficient, additional pages, properly referenced, may be attached to the required forms to provide complete responses. All forms can be obtained from the address provided at N.J.A.C. 7:1F-1.10(a). The owner and operator shall initially submit, or disclose, only the confidential copy of documents containing confidential information to the Department. The public copy that shall have deleted all confidential information and be available for public disclosure shall be submitted to the Department only upon the Department's receipt of a request for the public

disclosure of the information or if the Department otherwise decides to determine whether the information is entitled to confidential treatment. The confidential copy shall be for the Department's records and shall include all necessary information.

(e) Any confidential information supplied to the Department shall be sent by certified mail, return receipt requested, by personal delivery, or by other means that provides verification of delivery, the date of delivery, and the name of the person who receives the document in the Department.

(f) No employees or agents of the Department are authorized to sign a confidentiality agreement or other non-disclosure agreement, and any such agreement so executed will be of no force or effect as to the Department.

7:1F-8.3 Exclusions from confidential information

(a) Information required to be submitted or disclosed to the Department pursuant to the Act or this chapter that meets the following criteria shall not be considered as confidential information, regardless of any claim or petition, either pending or approved:

1. The name of the owner and operator, address, and the name and location of the underground storage cavern facility(ies);

2. The chemical or common name, Chemical Abstract Services number, United States Department of Transportation identification number, regulated substance name, or other identifying name for the substance;

3. Information required to be publicly disclosed pursuant to any other Federal or State law or regulation;

4. Information required to be publicly disclosed pursuant to a court order or ruling;

5. Information that is patented;

6. Information that is published or available through any public source;

7. Information that is known to persons outside the owner and operator's business, who are not bound by a confidentiality agreement or other duty to keep the information confidential;

8. Information that is determined not to be confidential information pursuant to this chapter;

9. Information required to be included in the facility emergency response plan pursuant to N.J.A.C. 7:1F-3.4; and

10. Information submitted or disclosed to the Department by an owner and operator that is not marked, or that does not display in bold type or stamp the word,

"CONFIDENTIAL" on the top of each page.

7:1F-8.4 Confidentiality claims

(a) Any owner and operator required to submit or disclose to the Department any information pursuant to the Act or this chapter that, in the owner and operator's opinion, constitutes confidential information, may assert a confidentiality claim by following the procedures set forth in this section.

(b) Any owner and operator asserting a confidentiality claim shall do so, in writing, on a form provided by the Department at the time the owner and operator provides or discloses confidential information to the Department.

(c) Any owner and operator submitting any information to the Department and asserting a confidentiality claim covering any information contained therein shall submit a confidential copy of the document to the Department along with a properly executed confidentiality claim form. The confidential copy shall contain all the information required by the Act or this chapter including any information that the claimant requests to be treated as confidential. A second copy, the public copy, which shall be identical to the confidential copy, except that it shall contain no information that the claimant requests to be treated as confidential, shall be submitted to the Department, only if the Department receives a request for public disclosure of the information or if the Department decides to determine whether the information is entitled to confidential treatment. The public copy can be a photocopy of the confidential copy, with the allegedly confidential information blacked out. When a public copy is required, the Department shall notify the claimant by certified mail, return receipt requested, that it must submit the public copy and the required fee, along with the confidentiality claim substantiation form, as required at N.J.A.C. 7:1F-8.5(d), to the Department within 30 days. If the public copy, required fee, or the confidentiality claim substantiation form is not received by the Department within the 30-day time limit, the Department shall send a letter by certified mail, return receipt requested, notifying the claimant that its claim will be considered abandoned and the confidential copy shall be treated as public information, unless the public copy, required fee, or substantiation form is received by the Department within 10 days of receipt of the Department's notice. (d) The top of each page of the confidential copy containing any information which the claimant desires to be treated as confidential shall display the heading "CONFIDENTIAL" in bold type, or stamp.

(e) All parts of the text of the confidential copy that the claimant requests to be treated as confidential shall be underscored or highlighted in a clearly identifiable manner. This manner of marking confidential information shall be such that both the information claimed as confidential and the underscoring or highlighting is reproducible on photocopying machines. Information not so marked will be treated as public and may be disclosed without notice to the claimant.
(f) The confidential copy, containing the information that the claimant alleges to be entitled to confidential treatment, shall be sealed in an envelope that shall display the word
"CONFIDENTIAL" in bold type or stamp on both sides. This envelope, together with the confidentiality claim form (which may or may not be enclosed in a separate envelope, at the option of the claimant), shall be enclosed in another envelope for transmittal to the Department, at the address provided at N.J.A.C. 7:1F-1.10. The outer envelope shall bear no marking indicating the confidential nature of its contents.

(g) To ensure proper delivery, the complete package should be sent by certified mail, return receipt requested, by personal delivery, or by other means that will provide verification of delivery, the date of delivery, and the name of the person who receives the document at the Department. Ordinary mail may be used, but the Department will assume no responsibility for packages until they are actually received at the address provided at N.J.A.C. 7:1F-1.10.
(h) The certification on the bottom of the confidentiality claim form shall contain the signature and certification specified at N.J.A.C. 7:1F-1.8. Any substantiation form that the claimant submits to support a confidentiality claim shall also contain the signature and certification as specified at N.J.A.C. 7:1F-1.8.

(i) For information that, in the owner and operator's opinion, constitutes confidential information and which is merely disclosed to the Department during an inspection, only one copy, the confidential copy, need be revealed to the Department at that time. A properly executed confidentiality claim form for the information disclosed shall be submitted to the Department at the time of such disclosure. The second copy, the public copy, will be submitted to the Department only if it becomes necessary for the Department to make a confidentiality determination concerning the information claimed as confidential that is disclosed during an inspection. Any information disclosed to the Department during an inspection that is not properly marked and identified as confidential information will not be considered confidential or be treated as such by the Department.

(j) If upon receipt of the public copy the Department becomes aware of an apparent error or omission on the part of a claimant in failing to delete information from the public copy that it identified as being confidential by underscoring or highlighting on the confidential copy, the Department shall send a letter by certified mail, return receipt requested, notifying the claimant of the apparent error or omission. The letter shall advise the claimant that the claim as to all information not deleted on the public copy will be considered abandoned and the public copy will be treated as public information, unless the Department receives a corrected public copy within 10 days of receipt of the Department's notice.

7:1F-8.5 Determination of confidentiality claims

(a) Information for which a confidentiality claim has been asserted will be treated by the Department as entitled to confidential treatment, unless the Department determines that the information is not entitled to confidential treatment as provided in this section.

(b) The Department shall act upon a confidentiality claim and determine whether information is, or is not, entitled to confidential treatment, whenever the Department:

1. Receives a request pursuant to N.J.S.A. 47:1A-1 et seq., to inspect or copy such information;

2. Decides to determine whether information in its possession is entitled to confidential treatment; or

3. Desires for any reason in the public interest to disclose the information to persons not authorized by this subchapter to have access to confidential information.

(c) Whenever the Department is required to, or decides to, make a determination whether information is entitled to confidential treatment, the Department shall first make a determination that the information claimed as confidential has not been the subject of a prior confidentiality determination by the Department concerning the same facility, or if it has, that the prior determination upheld the owner's or operator's claim. If such a prior determination held that the confidentiality claim was invalid, the Department shall notify the claimant by registered mail, return receipt requested, that the information claimed as confidentiality of the same information in which it was held that such claim was invalid and the Department will treat the information as public information.
(d) If the Department determines that the information is not the subject of a prior confidentiality determination, the Department shall notify the claimant by certified mail, return receipt

requested, of the claimant's right to submit substantiation in support of its claim that the information is entitled to be treated as confidential. The substantiation shall be submitted, in writing, on a form provided by the Department, shall be accompanied by the public copy of the information and the fee set forth at N.J.A.C. 7:1F-1.9(h) for review of the substantiation, and shall be received by the Department within 30 days of receipt of the Department's notice. The substantiation shall include, but need not be limited to, the following:

1. The reasons why the information needs to be treated as confidential;

2. The extent to which disclosure of the information would result in damage to the claimant, including a description of the damage, and an explanation of the relationship between disclosure and the damage;

The period of time for which confidential treatment is desired by the claimant (for example, until a certain date, until the occurrence of a specified event, or permanently);
 The measures taken by the claimant to guard against undesired disclosure of the information to others, and claimant's intention to continue such measures and any new measures the claimant intends to implement in the future to protect the information;
 The extent to which the information has been published, or otherwise disclosed to others, including employees, and the precautions taken in connection therewith;
 Prior confidentiality determinations concerning the information made by the Department, another agency, or a court, and a copy of such determination;
 Whether the information is patented, and, if so, identification of the patent and an explanation why the patent:

i. Does not connect the claimant with the confidential information; and

ii. Does not protect the claimant from competitive harm.

8. The ease or difficulty with which the information could be discovered through reverse engineering and an estimate for the cost;

9. Whether any Federal or State law, rule, or regulation requires the public disclosure of the information, and a copy of the law, rule, or regulation; and

10. For security information, a description of the adverse impact that disclosure would have on either the facility's security or its operations.

(e) Failure of a claimant to furnish the public copy and the confidentiality claim substantiation form or to pay the required fee within 10 days of receipt of the Department's second notice provided in accordance with N.J.A.C. 7:1F-8.4(c), waives the claimant's confidentiality claim and the information will be treated as public information.

(f) The owner and operator may assert a confidentiality claim for any confidential information contained in its substantiation form submitted to the Department pursuant to (d) above. To claim this material as confidential, the claimant shall clearly designate those portions of the substantiation form claimed as confidential, in accordance with the procedures provided at N.J.A.C. 7:1F-8.4(d) and (e). Information not properly marked will be treated as public and may be disclosed without notice to the claimant.

1. The claimant shall initially submit, to the Department, only the confidential copy of any substantiation form that contains confidential information prepared, in accordance with the provisions specified at N.J.A.C. 7:1F-8.4(c). The certification on the substantiation form shall be executed as provided at N.J.A.C. 7:1F-1.8.

(g) The substantiation form shall be enclosed in envelopes as specified at N.J.A.C. 7:1F-8.4(f) and be forwarded to the address provided therein. To ensure proper delivery, the methods specified at N.J.A.C. 7:1F-8.4(g) shall be followed.

(h) The Department may extend the time limit for submitting substantiation pursuant to (d) above to not more than 60 days upon receipt of a request, in writing, for good cause shown.(i) After receiving the substantiation, the Department shall make a final confidentiality determination, in accordance with the criteria set forth at (j) below.

 If, after review, the Department determines that the information is not entitled to confidential treatment, the Department shall so notify the claimant by certified mail, return receipt requested. The notice shall state the basis for the determination and shall advise the claimant of its right to request an adjudicatory hearing in accordance with the procedures specified at N.J.A.C. 7:1F-7.4(b). The notice shall also advise the claimant that the Department shall make the information available to the public on the 30th day following receipt by the claimant of the written notice, unless the Department has received a timely written request for an adjudicatory hearing to contest such decision.
 If, after review, the determination is made that information is entitled to confidential treatment, the information shall not be disclosed, except as otherwise provided by this subchapter. The claimant shall be notified of the Department's determination by regular mail. The notice shall state the basis for the determination and that it constitutes final agency action.

(j) If the claimant satisfies each of the substantive criteria at (j)1 through 10 below, the Department shall determine that the information for which a confidentiality claim has been asserted shall be treated as confidential:

1. The claimant has established a reasonable basis for treating the information as confidential;

Except for security information (see (j)10 below), the claimant has shown that disclosure of the information would be likely to cause damage to its competitive position;
 The claimant has asserted a confidentiality claim that has not expired by its terms or been waived or withdrawn;

4. The claimant has shown that reasonable measures have been taken to protect the confidentiality of the information and that the claimant intends to continue to take such measures;

5. The information is not, and has not been, available or otherwise disclosed to persons other than employees, except under a confidentiality or non-disclosure agreement, or in any way without the claimant's consent (other than by subpoena or by discovery based on a showing of special need in a judicial or quasi-judicial proceeding, as long as the information has not become available to a person not involved in the proceeding);
6. Any prior confidentiality determinations concerning the information made by the Department, another agency, or a court, approved or upheld the registrant's confidentiality claim;

7. The information is not the subject of a patent, or if patented, the patent does not connect the claimant with the confidential information and does not protect the claimant from competitive harm;

8. The confidential information is not readily discoverable through reverse engineering;

9. No law, rule, or regulation requires public disclosure of the information; and

10. For security information, the claimant has shown that disclosure of the information

would likely have an adverse effect on the security of the facility or its operations.

7:1F-8.6 Maintaining the confidentiality and security of confidential information

(a) Until such time as a final confidentiality determination has been made, access to any information for which a confidentiality claim has been made will be limited to only those
 Department employees and agents whose activities necessitate such access, and as provided at N.J.A.C. 7:1F-8.9.

(b) No disclosure of information for which a confidentiality claim has been asserted shall be made to any other persons, except as provided in this subchapter.

(c) Nothing in this section shall be construed as prohibiting the incorporation of confidential information into cumulations of data subject to disclosure as public records, provided that such disclosure is not in a form that would foreseeably allow persons, not otherwise having knowledge of such confidential information, to deduce from it the confidential information or the identity of the petitioner who supplied it to the Department.

(d) Only those Department employees who are designated as records custodians, in accordance with (l) below, shall open any envelope that is marked "CONFIDENTIAL" and is addressed as provided at N.J.A.C. 7:1F-8.4(f).

(e) All submissions entitled to confidential treatment as determined at N.J.A.C. 7:1F-8.5 shall be stored by the Department or its agents only in locked cabinets.

(f) Any record made or maintained by Department employees or agents that contains confidential information shall be treated as confidential in accordance with the provisions of this section.

(g) Confidential information shall not be publicly disclosed by the Department and shall not be communicated over telecommunications networks, including, but not limited to, telephones, computers connected by modems, or electronic mail systems.

(h) Any document that contains confidential information and is transmitted by the Department to the owner or operator or to any authorized person, shall be sent by certified mail or by other means that requires a verification of receipt, the date of receipt, and the name of the person who receives the document.

(i) The Department's contact regarding confidential information shall be the owner and operator's authorized person.

(j) Any document that contains confidential information and is prepared by the Department for the owner and operator shall display the word "CONFIDENTIAL" in bold type or stamp on the top of each page. The envelope containing this document shall be addressed to the owner and operator's authorized person and shall display the word "CONFIDENTIAL" in bold type or stamp on both sides. This envelope shall be enclosed in a plain envelope addressed for mailing.

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(k) No persons other than the Commissioner's designated employees, or designated agents, or an administrative law judge conducting a hearing on the confidentiality of information pursuant to N.J.S.A. 52:14B-1 et seq., and 52:14F-1 et seq., shall have access to confidential information and such access shall be on a need-to-know basis only. Said designated representatives of the Commissioner shall be employees or agents of the Department and such designation shall be made in writing.

(1) The Commissioner shall designate employees to act as records custodians of all confidential information gathered pursuant to the Act or this chapter. These designated employees shall be responsible for acknowledging and recording the receipt of confidential information from an owner and operator, for tracking and recording all confidential information given to Department-designated employees or agents or an administrative law judge, for maintaining and upkeeping the confidential information file and storage area and for establishing any other methods deemed appropriate to protect the confidentiality of information through internal procedures or guidelines.

(m) Any confidential information added to a computerized database shall only be added to computers that are:

1.Capable of being locked during periods of non-use by means of a lock and key mechanism, or by the use of passwords or levels of security clearances, or by other means that restrict access only to authorized Department personnel;

2. Are not tied to another computer system by means of communications network; and

3. Are kept within an office capable of being locked when not being used by an authorized person.

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(n) Any confidential information that has been submitted to the Department and has become obsolete or is no longer needed by the Department for the implementation of the Act or this chapter shall be returned to the owner and operator.

7:1F-8.7 Disclosure of confidential information

(a) The Department may disclose confidential information to a person other than a Department employee, agent, or administrative law judge only as provided in this section.

(b) The Department may disclose confidential information to any other governmental agency, if:

1. The Department receives a written request for disclosure of the information from a duly authorized officer or employee of the other agency;

2. The request sets forth the official purpose for which the information is needed;

3. The Department notifies the other agency of the Department's determination that the information is entitled to confidential treatment, or of any unresolved confidentiality claim covering the information;

4. The other governmental agency has first furnished to the Department a written formal legal opinion from the agency's chief legal officer or counsel stating that, under applicable law, the agency has the authority to compel the person who submitted the information to the Department to disclose such information to the other agency;

5. The other agency agrees not to disclose the information further, unless;

i. The other agency has statutory authority both to compel production of the information and to make the proposed disclosure; or

ii. The other agency has obtained the consent of the affected owner and operator of the proposed disclosure; and

6. The other agency has adopted rules or operates under statutory authority that will allow it to preserve confidential information from unauthorized disclosure.

(c) The Department may disclose confidential information to an agent of the Department and to an agent's employees when the agent is assisting in implementing the Act, its activities necessitate such access, and the requirements at (c)1 below have been satisfied. Any such disclosure of confidential information shall be restricted to a person approved, in writing, by the Department.

1. An agent shall not receive any confidential information, unless:

i. It has submitted a plan to the Department that describes measures for adequately protecting confidential information from unauthorized disclosure, and such plan has been approved by the Department;

ii. It has provided written documentation demonstrating, to the satisfaction of the Department, that it maintains professional liability insurance and comprehensive general liability insurance in amounts to be set by the Department; and iii. In addition to the requirement at (c)2 below, it has signed an agreement developed by the Department, protecting confidential information from unauthorized disclosure. The agreement shall include a provision whereby the agent assumes liability for any damages to the registrant resulting from the intentional or negligent release of confidential information by the agent and its employees.

2. Any person granted access to confidential information pursuant to this section shall sign an agreement developed by the Department protecting the confidentiality of the information prior to receipt of the information.

3. Any person who receives confidential information pursuant to this section shall take appropriate measures to protect the information from unauthorized disclosure that shall include, but not be limited to:

i. Keeping the information confidential from unauthorized persons;

ii. Keeping any records containing confidential information in a locked file cabinet or safe, when not in use;

iii. Using the information only for the use approved by the Department;

iv. Not reproducing the confidential information; and

v. Returning all material on which the confidential information has been recorded to the Department within 30 days after finishing using the information.

(d) Except as otherwise provided at (e) below, the Department shall notify, in writing, the owner and operator who supplied the confidential information of:

1. Its disclosure to another agency or agent of the Department;

2. The date on which disclosure was made;

3. The name of the agency or agent to which it was disclosed; and

4. A description of the information disclosed.

(e) The Department may disclose any confidential information to any other person if it has obtained the written consent of the owner's or operator's authorized person to such disclosure.

1. The giving of consent by an owner and operator to disclose shall not be deemed to waive a confidentiality claim with regard to further disclosures, unless the authorized disclosure is of such nature as to make the disclosed information accessible to the general public.

(f) The Department may use confidential information in a civil or criminal proceeding, if permitted by a court.

7:1F-8.8 Wrongful access or disclosure

(a) A person shall not disclose, seek access to, obtain, or have possession of any confidential information obtained pursuant to the Act or this chapter, except as authorized by this subchapter.(b) Every Department employee or agent who has custody or possession of confidential information shall take appropriate measures to safeguard such information and to protect against its improper disclosure.

(c) A Department employee or agent shall not disclose, or use for his or her private gain or advantage, any information that came into his or her possession, or to which he or she gained access, by virtue of his or her official position of employment or contractual relationship with the Department.

(d) If the Department finds that any person has violated the provisions of this subchapter, it may:
1. Commence a civil action in Superior Court for a restraining order and an injunction barring that person from further disclosing confidential information; and
2. Pursue any other remedy available by law.

(e) In addition to any other remedy that may be sought by the Department, violation of this subchapter by a Department employee shall constitute grounds for dismissal, suspension, fine, or other adverse personnel action.

(f) Disclosure by an agent in violation of this subchapter or the contractual provisions described

at N.J.A.C. 7:1F-8.9(c) shall constitute grounds for debarment or suspension as provided at

N.J.A.C. 7:1-5, Debarment, Suspension and Disqualification from Department Contracting, in

addition to whatever other remedies may be available to the Department at equity or law.

(g) Use of any of the remedies specified under this section shall not preclude the use of any other remedy.

7:1F-8.9 Use of confidential information in rulemaking

Notwithstanding any other provisions of this subchapter, the Department may use confidential information in the development of program rules and in the preparation of enforcement documents and during enforcement proceedings.

APPENDIX

FINANCIAL FORMS

Adopted:

Effective:

A.1 Letter from chief financial officer:

To demonstrate that it meets the financial test under N.J.A.C. 7:1F-6.2(f)1 or 2, the chief financial officer of the system or guarantor shall prepare and sign a letter worded exactly as follows, except that the instructions in brackets are to be replaced by the relevant information and the brackets deleted.

LETTER FROM CHIEF FINANCIAL OFFICER

I am the chief financial officer of [insert: name and address of the owner or operator, or guarantor]. This letter is in support of the use of [insert: "the financial test of self-insurance" and/or "guarantee"] to demonstrate financial responsibility for activities arising from decommissioning [insert: name(s) and address(es) of facility(ies)] in the amount of at least [insert: dollar amount].

A [insert: "financial test" and/or "guarantee"] is also used by this [insert: "owner or operator" or "guarantor"] to demonstrate evidence of financial responsibility in the following amounts under the following State rules or regulations (i.e. RCRA, ECRA, UST, etc.):

[insert: applicable rules or regulations and amounts, if none so state]

This [insert: "owner or operator" or "guarantor"] has not received an adverse opinion, a disclaimer of opinion, or a "going concern" qualification from an independent auditor on his or her financial statements for the latest completed fiscal year.

[Fill in the information for Alternative I if the criteria of N.J.A.C. 7:1F-6.2(f)1 based on tangible net worth are being used to demonstrate compliance with the financial test requirements. Fill in the information for Alternative II if the criteria based on bond rating or net working capital of N.J.A.C. 7:1F-6.2(f)2 are being used to demonstrate compliance with the financial test requirements.]

ALTERNATIVE I

 Amount of coverage being assured by a financial test and/or guarantee

\$

2.	Amount of annual aggregate coverage for all other federal or State		
	regulatory costs (i.e. RCRA, ECRA, UST, etc.) covered by a		
	financial test, and/or guarantee	\$	
3.	Sum of lines 1 and 2	\$	
4.	Total tangible assets	\$	
5.	Total liabilities [if any of the amount reported on line 3 is included		
	in total liabilities, you may deduct that amount from this line and		
	add that amount to line 6]	\$	
6.	Tangible net worth [subtract line 5 from line 4]	\$	
		YES	NO
7.	Is line 6 at least \$10 million?		
8.	Is line 6 at least 10 times line 3?		
9.	Have financial statements for the latest fiscal year		
	been filed with the Securities and Exchange Commission?		

10.	Have financial statements for the latest fiscal year		
	been filed with the Energy Information Administration?		
11.	Have financial statements for the latest fiscal year been filed		
	with the Rural Utilities Services or the Board of Public Utilities?		
12.	Has financial information been provided to Dun and Bradstreet,		
	and has Dun and Bradstreet provided a financial strength rating of		
	4A or 5A? [Answer "Yes" only if both criteria have been met]		

ALTERNATIVE II

1.	Amount of coverage being assured by	
	a financial test and/or guarantee	\$
2.	Amount of annual aggregate coverage for all other Federal or State	
	regulatory costs (i.e. RCRA ECRA, UST, etc.) covered by a	
	financial test, and/or guarantee	\$

3. Sum of lines 1 and 2

\$_____

4.	Total tangible assets	\$	
5.	Total liabilities [if any of the amount reported on line 3 is included		
	in total liabilities, you may deduct that amount from this line and		
	add that amount to line 6]	\$	
6.	Tangible net worth [subtract line 5 from line 4]	\$	
7.	Total assets in the U.S. [required only if less than 90 percent		
	of assets are located in the U.S.]	\$	
		YES	NO
8.	Is line 6 at least \$10 million?		
9.	Is line 6 at least 6 times line 3?		
10.	Are at least 90 percent of total assets located in the		
	U.S.? [If "No", complete line 11.]		
11.	Is line 7 at least 6 times line 3?		

[Fill in either lines 12-15 or lines 16-18:]

12.	Current assets	\$	
13.	Current liabilities	\$	
14.	Net working capital [subtract line 13 from line 12]	\$	
15.	Is line 14 at least 6 times line 3?	YES	NO
16.	Current bond rating of most recent bond issue		
17.	Name of rating service		
18.	Date of maturity of bond		
19.	Have financial statements for the latest fiscal year been filed with the SEC, the Energy Information Administration, the Rural Utilities Services or the Board of Public Utilities?		
	[If "No", please attach a report from an independent certified public		

accountant certifying that there are no material differences between

the data as reported in lines 4-18 above and the financial statements

for the latest fiscal year.]

[For both Alternative I and Alternative II complete the certification with this statement.]

I hereby certify that the wording of this letter is identical to the wording specified in Appendix A of N.J.A.C. 7:1F, as such rules were constituted on the date shown immediately below.

[Signature] [Name] [Title] [Date]

A.2 Guarantee:

The guarantee must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

GUARANTEE

Guarantee made this [insert: date] by [insert: name of guaranteeing entity], a business entity organized under the laws of the State of [insert: name of state], herein referred to as guarantor, to the Department and to any and all third parties, and obligees, on behalf of [insert: name of owner or operator] of [insert: business address of owner or operator].

Recitals.

(1) Guarantor meets or exceeds the financial test criteria of N.J.A.C. 7:1F-6.2(f) and agrees to comply with the requirements for guarantors as specified in N.J.A.C. 7:1F-6.2(g) through (j).

(2) [Insert: name of owner or operator] owns or operates the following underground storage cavern system covered by this guarantee: [Insert: name(s) and address(es) of the facility(ies)] This guarantee satisfies the requirements of N.J.A.C. 7:1F-6.2 for assuring funding in the amount of [insert: dollar amount] for activities arising from the decommissioning of the above identified facility(ies).

(3) [Insert appropriate phrase: "On behalf of our subsidiary" (if guarantor is corporate parent of the owner or operator); "On behalf of our affiliate" (if guarantor is a related firm of the owner or substantial business relationship with owner or operator); "Incident to our business relationship with" (if guarantor is providing the guarantee as an incident to a substantial business

relationship with owner or operator)] [insert: name of owner or operator], guarantor guarantees to the Department and to any and all third parties that:

In the event that [insert: name of owner or operator] fails to provide alternate coverage within 30 days after receipt of a notice of cancellation of this guarantee, the guarantor, upon instructions from the Department, shall fund a standby trust fund in an amount sufficient to cover decommissioning activities, in the minimum amount specified in N.J.A.C. 7:1F-6.2(a).

In the event that the Department determines that [insert: name of owner or operator] has failed to perform decommissioning activities for an above-identified facility, the guarantor, upon written instructions from the Department, shall fund a standby trust in an amount sufficient to cover decommissioning activities, in the minimum amount specified in N.J.A.C. 7:1F-6.2(a).

(4) Guarantor agrees that if, at the end of any fiscal year before cancellation of this guarantee, the guarantor fails to meet the financial test criteria of N.J.A.C. 7:1F-6.2(f), guarantor shall send within 120 days of such failure, by certified mail, notice to [insert: name of owner or operator] and the Department. The guarantee will terminate 120 days from the date of receipt of the notice by [insert: name of owner or operator] or 120 days from the date of receipt of the notice by the Department, whichever is later, as evidenced by the return receipt.

(5) Guarantor agrees to notify [insert: name of owner or operator] by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.

(6) Guarantor agrees to remain bound under this guarantee notwithstanding any modification or alternation of any obligation of [insert: name of owner or operator] pursuant to N.J.A.C. 7:1F.

(7) Guarantor agrees to remain bound under this guarantee for so long as [insert: name of owner or operator] must comply with the applicable financial responsibility requirements of N.J.A.C. 7:1F-6.2 for the above-identified facility, except that guarantor may cancel this guarantee by sending notice by certified mail to [insert: name of owner or operator] and the Department, such cancellation to become effective no earlier than 120 days after receipt of such notice by [insert: name of owner or operator], as evidenced by the return receipt.

(8) The guarantor's obligation does not apply to any of the following:

(a) Any obligation of [insert: name of 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 not related to a discharge 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 damage 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. 7:1E-6.2.

(9) Guarantor expressly waives notice of acceptance of this guarantee by the Department or by [insert: name of owner or operator].

I hereby certify that the wording of this guarantee is identical to the wording specified in Appendix A of N.J.A.C. 7:1F as such rules were constituted on the effective date shown immediately below.

Effective date:

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary:

A.3 Insurance or risk retention group:

Each insurance policy must be amended by an endorsement worded as specified in paragraph (1) or evidenced by a certificate of insurance worded as specified in paragraph (2), except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

 NAME:
 [name of each covered location]

 ADDRESS:
 [address of each covered location]

POLICY NUMBER:

PERIOD OF COVERAGE [current policy period]

NAME OF [INSURER OR RISK RETENTION GROUP]:

ADDRESS OF [INSURER OR RISK RETENTION GROUP]:

NAME OF INSURED:

ADDRESS OF INSURED:

Endorsement:

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance, subject to public policy considerations, covering the following facility(ies): [insert: location name(s) and address(es) of each covered facility] for decommissioning activities.

The limits of liability are [insert the dollar amount of the Insurer's or Group's liability for each facility covered], exclusive of legal defense costs. This coverage is provided under [insert: policy number]. The effective date of said policy is [date].

2. The insurance afforded with respect to such decommissioning activities is subject to all of the terms and conditions of the policy; provided, however, that any provisions inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

a. Bankruptcy or insolvency of the insured shall not relieve the [insert: "Insurer" or "Group"] of its obligations under the policy to which this endorsement is attached.

b. The [insert: "Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of decommissioning activities, with a right of reimbursement by the insured for any such payment made by the [insert: "Insurer" or "Group"]. This provision does not apply with respect to that amount of any

deductible for which coverage is demonstrated under another mechanism or combination of mechanisms.

c. Whenever requested by the Department, [insert: "Insurer" or "Group"] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the [insert: "Insurer" or Group"], except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of 10 days after the date on which the insured receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice, whichever is later.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the [insert: "Insurer" or "Group"] within six months of the effective date of the cancellation or nonrenewal of the policy, except where the new or renewed policy has the

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same retroactive date or a retroactive date earlier than that of the prior policy, and that arise out of any cleanout and removal activities that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date.]

I hereby certify that the wording of this instrument is identical to the wording in Appendix A of N.J.A.C. 7:1F and that the [insert: "Insurer" or "Group"] is [Insert appropriate phrase: "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 or Risk Retention Group] [Name of person signing] [Title of person signing], Authorized Representative of [name of Insurer or Risk Retention Group]

[Address of Representative]

CERTIFICATE OF INSURANCE

[name of each covered location]

ADDRESS:

NAME:

(2)

[address of each covered location]

POLICY NUMBER:

ENDORSEMENT (if applicable):_____

PERIOD OF COVERAGE [current policy period]

NAME OF [INSURER OR RISK RETENTION GROUP]:

ADDRESS OF [INSURER OR RISK RETENTION GROUP]:

NAME OF INSURED:

ADDRESS OF INSURED:

Certification:

1. [insert: Name of Insurer or Risk Retention Group], the [insert: "Insurer" or "Group"], as identified above, hereby certifies that it has issued liability insurance, subject to public policy considerations, covering the following facility(ies): [List the name(s) and address(es) of each

covered facility] for decommissioning activities arising from operating the facility(ies) identified above.

The limits of liability are [insert the dollar amount of the "each occurrence" and "annual aggregate" limits of the Insurer's or Group's liability for each covered facility], exclusive of legal defense costs. This coverage is provided under [insert: policy number]. The effective date of said policy is [insert: date].

2. The [insert: "Insurer" or "Group"] further certifies the following with respect to the insurance described in Paragraph 1:

a. Bankruptcy or insolvency of the insured shall not relieve the [insert: "Insurer" or "Group"] of its obligations under the policy to which this certificate applies.

b. The [insert: "Insurer" or "Group"] is liable for the payment of amounts within any deductible applicable to the policy to the provider of decommissioning activities, with a right of reimbursement by the insured for any such payment made by the [insert: "Insurer" or Group"]. This provision does not apply with respect to that amount of any deductible for which coverage is demonstrated under another mechanism or combination of mechanisms.

c. Whenever requested by the Department, the [insert: Insurer" or "Group"] agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.

d. Cancellation or any other termination of the insurance by the [insert: "Insurer" or "Group"], except for nonpayment of premium or material misrepresentation by the insured, will be effective only upon written notice and only after the expiration of 60 days after the date on which the insured receives the written notice or 60 days after the date on which the Department receives the written notice, whichever is later. Cancellation for nonpayment of premium or material misrepresentation by the insured will be effective only upon written notice and only after the expiration of 10 days after the date on which the insured receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice or 10 days after the date on which the Department receives the written notice.

[Insert for claims-made policies:

e. The insurance covers claims otherwise covered by the policy that are reported to the [insert: "Insurer" or "Group"] within six months of the effective date of the cancellation or nonrenewal of the policy, except where the new or renewed policy has the same retroactive date or a retroactive date earlier than that of the prior policy, and that arise out of any cleanout and removal activities that commenced after the policy retroactive date, if applicable, and prior to such policy renewal or termination date.]

I hereby certify that the wording of this instrument is identical to the wording in Appendix A of N.J.A.C. 7:1F and that the [insert: "Insurer" or "Group"] is [Insert appropriate phrase: "licensed to transact the business of insurance" or "eligible to provide insurance as an excess or surplus lines insurer in the State"].

[Signature of authorized representative of Insurer or Risk Retention Group]

[Type name]

[Title], Authorized Representative of [name Insurer or Risk Retention Group]

[Address of Representative]

A.4 Surety Bond:

The surety bond must be worded as follows, except that instructions in brackets must be replaced with the relevant information and the brackets deleted:

PERFORMANCE BOND

DATE BOND EXECUTED: _____

PERIOD OF COVERAGE: _____

PRINCIPAL:	[legal name	and business address of owner or operator]	
TYPE OF ORGANI	ZATION:	[insert "individual," "joint venture," "partnership,"	
		or "corporation"]	
STATE OF INCORPORATION (If Applicable):			
SURETY(IES): <u>[names(s) and business address(es)]</u>			
SCOPE OF COVER	AGE: [List th	e name(s) and address(es) of the facility(ies). List the	
coverage guaranteed	l by the bond:	cleanout, removal, and decommissioning activities.]	

PENAL SUMS OF BOND: \$_____ [insert: "per facility",

if appropriate]

SURETY'S BOND NUMBER:

Know all Persons by These Presents, that we, the Principal and Surety(ies), hereto are firmly bound to the Department, in the above penal sums 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 Sureties, bind ourselves in such sums 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 sums 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 sums.

Whereas said Principal is required under N.J.S.A. 58:10-23.11 to provide financial assurance for decommissioning activities arising from operating the facility(ies) 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 the obligation are such that if the Principal shall faithfully perform cleanout and decommissioning activities arising from operating the facility(ies) identified above, or if the Principal shall provide alternate financial assurance within 120 days after the date the notice of cancellation is received by the Principal from the Surety(ies), then this obligation shall be null and void; otherwise, it is to remain in full force and effect.

Such obligation does not apply to any of the following:

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

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

(c) Bodily injury or property damage not related to a discharge 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 [owner or operator] that is not the direct result of a discharge from the facility;

(e) Bodily injury or property damage for which [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. 7:1F-6.2.

Upon notification by the Department that the Principal has failed to perform decommissioning activities in accordance with the Department's instructions, as guaranteed by this bond, the Surety(ies) shall either perform cleanout and/or decommissioning activities in accordance with the Department's instructions, or place funds in an amount up to the penal sum 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 within 60 days after the date the notice of cancellation is received by the Principal from the Surety(ies) and that the Department has determined or suspects that a discharge has occurred, the Surety(ies) shall place funds in an amount not exceeding the penal sum into the standby trust fund as directed by the Department.

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

The Surety(ies) hereby waive(s) notification of amendments to 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 penal sum shown on the face 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 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 the Principal or the

date of receipt of the notice of cancellation by the Department, whichever is later, as evidenced by the return receipt.

The Principal may terminate this bond by sending written notice to the Surety(ies).

In Witness Thereof, the Principal and Surety(ies) have executed this 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 Appendix A of N.J.A.C. 7:1F as such rules were 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:
Liability limit: \$
[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]
[For every co-surety, provide signature(s), corporate seal, and other information

in the same manner as for Surety above.]

Bond premium: \$_____

A.5 Letter of Credit:

The letter of credit must 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

[Name and address of issuing institution]

[Name and address of the Department]

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

(1) your sight draft, bearing reference to this letter of credit, No. ____, and

(2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to rules issued under authority of the N.J.S.A. 58:10-35.1 through 35.4, and that this letter of credit is not being drawn on to cover any of the following:

(a) Any obligation of [insert: name of 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 not related to a discharge 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. 7:1F-6.2."

This letter of credit may be drawn on to cover decommissioning activities arising from operating the facility(ies) identified below in the amount of [in words] \$ [dollar amount].

[name(s) and address(es) of facility(ies)]

This letter of credit is effective as of [insert: date] and shall expire on [insert: date], but such expiration date shall be automatically extended for a period of [insert: at least the length of the original term] on [insert: expiration date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify [insert: name of owner or operator]

and the Department by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event that [insert: name of owner or operator] is 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 [insert: name of owner or operator] or for 120 days after the date of receipt by the Department, as shown on the signed return receipt.

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 [insert: name of owner or operator] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in Appendix A of N.J.A.C. 7:1F, as such rules 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 appropriate phrase: "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].