

- “NCCW” means non-contact cooling water.
- “N.J.A.C.” means New Jersey Administrative Code.
- “NJPDES” means the New Jersey Pollutant Discharge Elimination System.
- “N.J.S.A.” means New Jersey Statutes Annotated.
- “NOAEC” means no observed adverse effect concentration.
- “NOEC” means no observable effect concentration.
- “NPDES” means the National Pollutant Discharge Elimination System.
- “NT” means non-trout waters.
- “OEP” means the Office of Environmental Planning.
- “OM” means optional measure.
- “PL” means the general surface water classification applied to Pinelands Waters.
- “POTW” means publicly owned treatment works.
- “PPSNC” means pretreatment program significant non-compliance.
- “PQL” means practical quantification level.
- “PVSC” means Passaic Valley Sewerage Commissioners.
- “RCRA” means Resource Conservation and Recovery Act.
- “RFA” means Request For Authorization under a general NJPDES permit.
- “SBR” means Statewide Basic Requirement.
- “SC” means the general surface water classification applied to coastal saline waters.
- “SDWA” means the Federal or State Safe Drinking Water Acts (P. L. 95-523, as amended by P. L. 95-1900; 42 U.S.C. §§ 300f et seq. and N.J.S.A. 58:12A-1 et seq., respectively).
- “SE” means the general surface water classification applied to saline waters of estuaries.
- “SESCP” means soil erosion and sediment control plan.
- “SIC” means Standard Industrial Classification.
- “SIU” means significant indirect user.
- “SNC” means significant non-compliance.
- “SOD” means sediment oxygen demand.
- “SSMP” means Statewide Sludge Management Plan.
- “TDS” means total dissolved solids.
- “TKN” means total Kjeldahl nitrogen.
- “TM” means trout maintenance.
- “TMDL” means total maximum daily load.
- “TOC” means total organic carbon.
- “TP” means trout production.
- “TSD” means the USEPA Technical Support Document (See USEPA TSD).
- “TSS” means total suspended solids.
- “TTO” means total toxic organics.
- “TUA” means toxic units acute
- “TUC” means toxic units chronic
- “TWA” means Treatment Works Approval.
- “TWTDS” means treatment works treating domestic sewage.
- “UIC” means Underground Injection Control program.
- “ug/L” means micrograms per liter.
- “USEPA” means the United States Environmental Protection Agency.
- “USEPA TSD” means the USEPA Technical Support Document for Water Quality Based Toxics Control, (EPA/505/2-90-001), March 1991.
- “USDA” means the United States Department of Agriculture.
- “USDA-NRCS” means the United States Department of Agriculture—Natural Resources Conservation Service.
- “USDW” means underground source of drinking water.
- “USGS” means United States Geological Survey.
- “USNRC” means the United States Nuclear Regulatory Commission.
- “UST” means underground storage tank.
- “VOC” means volatile organic compounds.
- “WET” means whole effluent toxicity.

“WLA” means wasteload allocation.

“WQBEL” means water quality based effluent limitation.

“WQM plan” means Water Quality Management plan.

“WSC” means Written Statement of Consent.

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 1331(a), 36 N.J.R. 813(a).

Added “AM”, “MS4”, “OM”, “SBR”.

7:14A-1.2 Definitions

As used in this chapter, the following words and terms shall have the following meanings:

“Abandoned well” means a well whose use has been discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.

“Acidizing” means the injection of acid through the borehole or well into a formation to increase permeability and porosity by dissolving the acid-soluble portion of the rock constituents.

“Action levels” means permit conditions which are not effluent limitations but require a permittee to act if breached.

“Actual flow” means the volume of sewage and other wastes which a treatment works receives. Actual flow shall be determined by the arithmetic average of the metered daily volumes of waste received at a treatment works for the preceding period of three consecutive calendar months. Where peak flows have been determined by the Department to be seasonal in nature, the seasonal peak flow period shall be used in determining actual flow.

“Acute to chronic ratio” means the ratio of the acute toxicity of an effluent or a toxicant to its chronic toxicity. It is used as a factor for estimating chronic toxicity on the basis of acute toxicity data, or for estimating acute toxicity on the basis of chronic toxicity data.

“Acute toxicity” means a lethal or severe adverse sublethal effect (for example, immobilization of daphnids) to an organism exposed to a toxic substance for a relatively short period of time. Acute toxicity is measured by short-term bioassays, generally of 48 or 96 hour duration.

“Adequate conveyance capacity” means:

1. In the downstream sewers, the peak dry weather flow does not exceed 80 percent of the depth of the pipe and the peak wet weather flow does not result in overflows or discharges from any unpermitted discharge location; and

2. In downstream pumping stations with two pumps, peak dry weather flow shall be handled by one pump, and in pumping stations with more than two pumps, peak dry weather flow shall be handled with the largest pump out of service, and the peak wet weather flow does not result in any overflow or discharge from any unpermitted discharge location.

“Administratively” means those procedures used by the Department in conducting normal business operations.

“Administratively continued” means the procedure used by the Department to extend the time period for a permit, authorization, or approval beyond the administrative expiration date of that permit, authorization, or approval.

“Administrator” means the Administrator of the United States Environmental Protection Agency (USEPA) or an authorized representative.

“Affected person” means a person who has asserted (and not waived or withdrawn) a confidentiality claim covering information submitted to the Department.

“Affected sewerage entity” means any public or private sewerage authority, municipal utilities authority, joint meeting, State agency, county, municipality, or other entity which owns or operates any sewage treatment plant or sewage collection system, into which a treatment works will discharge; or which has jurisdiction to treat or convey sewage or other wastewater in the service area in which the proposed treatment works are to be located. “Agricultural land,” for the purpose of N.J.A.C. 7:14A-20, means land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

“Agronomic rate” means the whole residual application rate on a dry weight basis designed:

1. To provide the amount of nitrogen or other nutrients needed by the food crop, feed crop, fiber crop, cover crop or vegetation grown on the land;
2. To minimize the amount of nitrogen or other nutrients from residual and all other fertilizer sources that passes below the root zone of the crop or vegetation grown on the land to the ground water or that runs off to surface waters; and
3. To provide the amount of calcium or magnesium oxides capable of neutralizing soil acidity.

“Algaecide” means chemical agents which have the capacity to destroy or otherwise control phytoplankton (algae) in water.

“Aliquot” means an individual sample of specified volume used to make up a total composite sample.

“Ambient study” means a water quality, biological, mixing zone, or other study conducted to determine the existing physical, chemical, or biological conditions in a waterbody, existing effects of a discharge or other activity on the physical, chemical, or biological conditions in a waterbody, and/or to predict the potential physical, chemical, or biological effects of a discharge or other activity on a waterbody.

“Anadromous fish” means fish that spend most of their life in saline waters and migrate to fresh waters to spawn.

“Animal feeding operation” means a lot or facility (other than an aquatic animal production facility) where the following conditions are met:

1. Animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period; and
2. Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility.

“Animal units” means the unit of measurement for any animal feeding operation calculated as follows: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0.

“Annual pollutant loading rate” means the maximum amount of a pollutant listed in 40 CFR 503.13 that can be applied to a unit area of land during a 365 day period.

“Annual whole residual application rate” means the maximum amount of a residual (dry weight basis) that can be applied to a unit area of land during a 365 day period.

“Applicant” means any person, corporation, government body or other legal entity which applies for a NJPDES permit or Departmental approval pursuant to this chapter.

“Application rates” means the hydraulic or loading limits determined and set by the Department governing the application of pollutants to the land or waters of the State.

“Apply residual or residual applied to the land” means land application of residual. This definition shall include apply sludge or sludge applied to the land as well as apply sewage sludge or sewage sludge applied to the land.

“Approved industrial pretreatment program” means an industrial pretreatment program prepared by a local agency and approved by the Department in accordance with 40 CFR Part 403 and N.J.A.C. 7:14A-19.

“Aquatic substrata” means soil material and associated biota underlying the water.

“Aquaculture projects” means a defined managed water area which uses discharges of pollutants into that designated area for the maintenance or production of harvestable freshwater, estuarine, or marine plants and animals.

“Aquifer” means a geologic formation, group of geologic formations, or a portion of a geologic formation capable of yielding a significant amount of ground water to wells or springs.

“Area of review” means the area surrounding an injection well described by the criteria set forth in N.J.A.C. 7:14A-8.13.

“Areawide plan” means any water quality management plan adopted pursuant to Sections 208 and 303 of the Federal Act and Section 5 of the “New Jersey Water Quality Planning Act,” N.J.S.A. 58:11A-1 et seq.

“Authorized representative” means those persons whose presence is in place of the actual entity, person, or Department, with all rights and responsibilities.

“Average monthly discharge limitation” means the highest allowable average of “daily discharges” over a calendar month calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

“Average weekly discharge limitation” means the highest allowable average of “daily discharges” over any seven consecutive days, calculated as the sum of all daily discharges measured during any seven consecutive days, divided by the number of daily discharges measured during that period.

“Background ground water quality” is the ground water quality that is not influenced by the discharge.

“Base flood” means a flood that has a one percent chance of occurring in any given year (that is, a flood with a magnitude equaled once in 100 years).

“Baseline Report” means a report required following promulgations of a Federal categorical standard, pursuant to 40 CFR 403.12(b).

“Batch discharge” means a “discharge” which occurs with interruption throughout the operating hours of the facility.

“Best management practices” or “BMPs” for purposes of this chapter means:

1. Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State; or
2. Methods, measures, or practices selected by an agency to meet its nonpoint source control needs.

BMPs also include treatment requirements, operating procedures, and techniques to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs include, but are not limited to, structural and nonstructural controls and operation and maintenance procedures. BMPs can be applied before, during, and after pollution-producing activities to reduce or eliminate the introduction of pollutants into receiving waters.

“Bimonthly” means occurring every two months.

“Bioaccumulation” means the increase of the concentration of a substance within the tissues of an organism, to levels in excess of that substance’s ambient environmental concentration, directly from the water or through the ingestion of food (usually other organisms).

“Bioassay” means a toxicity test using aquatic organisms to determine the concentration or amount of a toxic substance causing a specified response in the test organisms under stated test conditions.

“Biocide” means chemical agents with the capacity to destroy biological life forms. Bactericides, insecticides, and pesticides are examples of biocides.

“Biological monitoring method” means a testing method which utilizes any biological system or any of its parts for assessing the presence or effects of one or more pollutants and/or environmental factors, either alone or in combination.

“Biochemical oxygen demand” or “BOD” means the quantity of dissolved oxygen in milligrams per liter (mg/l) either in an effluent or in a waterbody, required during stabilization of decomposable organic matter by aerobic biochemical action as determined by analytical procedures set forth in the Manual of Methods for Chemical Analysis of Water and Wastes (USEPA, Office of Technology Transfer, Washington, D.C., March 1983).

“Biota” means the animal and plant life of an ecosystem; flora and fauna collectively.

“Biweekly” means occurring every two weeks.

“Board or body” means any governmental entity, who has or shares authority to approve all or portions of permits either in the first instance, as modified or reissued, or on appeal.

“Bulk residual” means residual that is not sold or given away in a bag or other container for application to the land. This definition shall include bulk sludge or bulk sewage sludge.

“Bunker silo” means a structure with low walls, a sloping floor of an impervious material (usually concrete), and a leachate collection system, designed to hold dewatered residuals.

“Bypass” means the anticipated or unanticipated intentional diversion of waste streams from any portion of a treatment works.

“Carbonaceous biochemical oxygen demand” or “CBOD” means that portion of the biological oxygen depletion either in an effluent or in a waterbody which is due to the oxidation of carbon containing compounds.

“Casing” means a pipe or tubing of varying diameter and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water, gas, or other fluid from entering the hole. For injection wells in Classes I, II, III, and IV, the pipe or tubing shall be a heavy metal (steel or iron).

“Catastrophic collapse” means the sudden and total failure of overlying strata caused by removal of underlying materials.

“Category one waters” means those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (h), for purposes of implementing the antidegradation policies as set forth at N.J.A.C. 7:9B1.5(d), the SWQS, for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resources(s). These waters may include, but are not limited to:

1. Waters originating wholly within Federal, Interstate, State, County, or municipal parks, forests, fish and wildlife lands, and other special holdings that have not been designated as FW1 in N.J.A.C. 7:9B-1.15(h), Table 6;
2. Waters classified in N.J.A.C. 7:9B-1.15(c) through (g) as FW2 trout production waters and their tributaries;
3. Surface waters classified in this subchapter as FW2 trout maintenance or FW2 nont trout that are upstream of waters classified in this subchapter as FW2 trout production;
4. Shellfish waters of exceptional resource value; or
5. Other waters and their tributaries that flow through, or border, Federal, State, county or municipal parks, forest, fish and wildlife lands, and other special holdings.

“Category Two waters” means those waters not designated as Outstanding National Resource Waters or Category One in N.J.A.C. 7:9B-1.15, the SWQS, for purposes of implementing the Antidegradation Policies.

“Cementing” means the operation or process whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing.

“Certified laboratory” means a laboratory certified by the Department in accordance with N.J.A.C. 7:18.

“Cesspool” means a covered pit with open-jointed lining into which untreated sewage is discharged, the liquid portion of which is disposed of by leaching into the surrounding soil, the solids or sludge being retained within the pit. A cesspool is an injection well.

“Chemical oxygen demand” or “COD” means a measure of the oxygen required to oxidize all compounds in water, both organic and inorganic (in milligrams per liter, mg/l) in a waste sample under specific conditions of an oxidizing agent, temperature and time as determined by analytical procedures set forth in the for Chemical Analysis of Water and Wastes (USEPA, Office of Technology Transfer, Washington, D.C., March 1983).

“Chlorine produced oxidants” means the sum of free and combined chlorine and bromine as measured by the methods approved under N.J.A.C. 7:18. In fresh waters the oxidants measured are comprised predominantly of hypochlorous acid (HOCl), hypochlorite ion (OCl⁻), monochloramine and dichloramine. In saline waters the oxidants measured are comprised predominantly of the oxidants listed for fresh waters plus hypobromous acid (HOBr), hypobromous ion (OBr⁻) and bromamines.

“Chronic toxicity” means death or other adverse impacts that affect the growth, survival, or reproductive success of an organism or its progeny after a relatively long exposure period to toxic substances. Chronic toxicity is measured using intermediate-term or long-term bioassays.

“Class 1 sewage sludge management facility” means any domestic treatment works (DTW) required to have an approved industrial pretreatment program under 40 CFR 403.8(a) (including any DTW located in a state that has elected to assume local program responsibilities pursuant to 40 CFR part 403.10(e)) and any treatment works treating domestic sewage classified as a Class 1 sewage sludge management facility by the Regional Administrator, or, in the case of State sewage sludge management program approval, the Regional Administrator in conjunction with the Commissioner, because of the potential for its sewage sludge use or disposal practice to affect public health and the environment adversely.

“Clean Water Act” (CWA) also known as the Federal Act or Federal Clean Water Act (33 U.S.C. §§ 1251 et seq.) including all subsequent supplements and amendments.

“Clean Water Act and regulations” means the Clean Water Act (CWA) and applicable regulations promulgated

thereunder. In the case of an approved State program (NJPDES), it includes State program requirements.

“Closed conduit” means any closed natural or artificial duct, such as a pipe, for conveying fluids.

“Coefficient of variation” means the statistical measure of variability calculated as the standard deviation divided by the estimated mean.

“col/100 mL” means the coliform colonies per 100 milliliters.

“Cold water aquatic animals” means, but is not limited to, the Salmonidae family of fish (for example, trout and salmon).

“Combined sewer overflow” means the excess flow from the combined sewer system which is not conveyed to the domestic treatment works for treatment, but transmitted by pipe or other channel directly to waters of the State.

“Combined sewer system” means a sewer system that is designed to carry sanitary sewage at all times and that also is designed to collect and transport stormwater from streets and other sources, thus serving a combined purpose.

“Commercial unit” means one or more buildings, or one or more rooms within a building, which will be occupied by a single individual, corporation, company, association, society, firm, partnership or joint stock company, and used for nonresidential purposes.

“Commissioner” means the Commissioner of the New Jersey Department of Environmental Protection or an authorized representative.

“Committed flow” means the sum of the actual flow plus the sum of all flows which are anticipated from connections which have been approved but are not yet in operation. The flow to be anticipated from any such connections shall be that flow approved by the Department.

“Complete permit application” means a permit application which is both administratively and technically complete. An administratively complete permit application is a permit application which complies with all of the requirements in the permit application checklist referenced in N.J.A.C. 7:14A-15.3(c). A technically complete permit application is a permit application which has been determined to be administratively complete and satisfactorily addresses the requirements in the permit application checklist and any specific permit application requirements for the particular type of discharge set forth in this chapter.

“Compliance monitoring report” means a report periodically submitted by a permittee to verify continued compliance. This term includes a Discharge Monitoring Report (DMR) and any report required in an SIU permit pursuant to 40 CFR 403.12(e).

“Composite sample” means a sample composed of several discrete samples combined in a known proportion. For NJPDES wastewater monitoring, a composite sample is a sample composed of several discrete samples collected at equal time intervals, or proportionally to the flow rate of the discharge.

“Composting” means the biological decomposition of dewatered organic residuals under controlled conditions of temperature, pH, oxygen and moisture, by which the volatile fraction, the putrescibility, and the pathogen concentrations in the residuals are reduced.

“Concentrated animal feeding operations” means an animal feeding operation which meets the criteria set forth in N.J.A.C. 7:14A-2.13.

“Concentrated aquatic animal production facilities” means a commercial aquarium, hatchery, fish farm, or other facility which meets the criteria set forth in N.J.A.C. 7:14A-2.14.

“Confidence interval” means the interval above and below the mean of the sample data set within which the true mean of the entire data set would be expected to be found.

“Confidence interval for individual data points” means the interval above and below the mean of the sample data set within which any individual datum would be expected to be found.

“Confidentiality claim” means a claim or allegation that information is entitled to confidential treatment because such information constitutes a trade secret.

“Confined aquifer” means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined ground water.

“Confining bed” means a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.

“Confining zone” means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.

“Connection” means, for purposes of N.J.A.C. 7:14A-22 only, any physical or operational change, associated with an increase in projected flow, to a collection system of any building, facility, or other structure either proposed or existing for which a building permit or other municipal approval including site plan or subdivision approval is required, and which connects directly or indirectly to any portion of a treatment works.

“Connection approval” means a treatment works approval to construct and/or operate a connection pursuant to N.J.S.A. 58:10A-6, N.J.A.C. 7:14A-2 or 7:14A-22 or a permit to construct and operate a sewer connection.

“Conservation Plan” means the information provided to a land user that includes guidance, alternatives, and decisions as needed to plan and apply resource management systems consistent with the National Conservation Planning Manual, Title 11, Natural Resources Conservation Service, United States Department of Agriculture, including all future amendments and supplements.

“Conservative parameter” means any parameter which is not significantly degraded by physical, chemical, or biological processes which may occur in a waterbody.

“Construction” means any placement, assembly or installation of facilities, equipment or treatment works, or modification of existing buildings, structures or facilities which is necessary for the placement, assembly or installation of new source facilities, equipment or treatment works, or entering into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss and contracts for feasibility, engineering and design studies do not constitute a contractual obligation for the purposes of this definition.

“Control authority” means the entity responsible for administering an industrial pretreatment program pursuant to 40 CFR 403 and N.J.A.C. 7:14A-19 and shall be the Department in areas of the State served by a local agency without an approved industrial pretreatment program or the delegated local agency in all other areas of the State.

“Controlled streams” means any uni-directional waterbody where the quantity or timing of water flow is determined by dams which restrict or otherwise regulate the flow in the waterbody.

“Construction waste” means a construction waste as defined in N.J.A.C. 7:26-1.4, examples of which are identified in N.J.A.C. 7:26-1.7(e)1iii.

“Contaminant” means any physical, chemical, biological, or radiological pollutant or matter in water.

“Contiguous zone” means the entire zone established by the United States under Article 24 of the Convention on the Territorial Sea and the Contiguous Zone.

“Continuous discharge” means a discharge which occurs without interruption throughout the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes, or other similar activities.

“Conventional pollutant” means a pollutant designated under Section 304(b)(4) of the Federal Act.

"Co-permittee" means, for purposes of N.J.A.C. 7:14A-24.2 and 25.9 only, a permittee that is only responsible for NJPDES permit conditions relating to the discharge for which that permittee is an operating entity.

"Cover crop" means a crop of close growing grasses, legumes, or small grains grown primarily for seasonal protection and soil improvement. A cover crop usually is grown for one year or less, except where there is permanent cover as in orchards.

"Criteria" means those elements of the Surface Water Quality Standards, set forth at N.J.A.C. 7:9B, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a designated use. When the criteria are met, water quality will generally protect the designated use.

"Criteria continuous concentration" means the chronic aquatic life criteria set forth in N.J.A.C. 7:9B-1.

"Criteria maximum concentration" means the acute aquatic life criteria set forth in N.J.A.C. 7:9B-1.

"Critical biological periods" means those time periods when significant portions of the biological community may be adversely affected by discharge activities, including reproductive periods or periods of stress resulting from non-biotic factors such as elevated temperature.

"Critical conditions" means the combination of those ambient conditions when the ambient water quality standards are more likely to be violated, such as elevated temperature or low flow periods.

"Cumulative pollutant loading rate" means the maximum amount of a pollutant listed in 40 CFR 503.13 that can be applied to an area of land.

"Cumulative substance" means a substance that may be bioaccumulated within an organism to concentrations that exert a toxic effect on that organism or render it unfit for consumption.

"Daily" means every calendar day including weekends and holidays.

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of

the pollutant expressed in designated units, calculated over the day.

"Daily monitoring" means monitoring conducted every calendar day, including weekends and holidays.

"Day" means an operating day or 24-hour period.

"Delegated local agency" means a local agency with an industrial pretreatment program approved by the Department.

"DEP Bulletin" means the publication issued by the Department designed to provide public notice of certain Department actions.

"Department" means the New Jersey Department of Environmental Protection.

"Designated use" means those surface water or ground water uses, both existing and potential, that have been established by the Department for waters of the State.

"Design flow" means the average daily volume of wastewater which a domestic treatment works was designed to treat or convey, or the maximum permissible volume of flow to a domestic treatment works as established by a NJPDES permit or a treatment works approval, whichever is most stringent.

"Designated project area" means the portions of the waters of the State within which the permittee or permit applicant plans to confine the cultivated species, using a method or plan of operation (including, but not limited to, physical confinement) which, on the basis of reliable scientific evidence, is expected to ensure that specific individual organisms comprising an aquacultural crop will enjoy increased growth attributable to the discharge of pollutants, and be harvestable within a defined geographic area.

"Diadromous fish" means fish that spend most of their life in one type of water, either fresh or saline, and migrate to the other type to spawn.

"Diffuser" means a device which is attached to the outfall pipe to improve the mixing of the effluent with the receiving water.

"Dike" means an embankment or ridge of either natural or man-made materials used to prevent the movement of liquids, sludges, solids or other materials.

"Direct discharge" means a discharge to surface water. A direct discharge includes any discharge through a separate storm sewer that does not lead to a DTW.

“Director” means the Director of the Department’s Division of Water Quality, its predecessor or successor, or an authorized representative.

“Discharge” means an intentional or unintentional action or omission resulting in the releasing, spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a pollutant into the waters of the State, onto land or into wells from which the pollutant might flow or drain into such waters, or into waters or onto lands outside the jurisdiction of the State which pollutant enters the waters of the State, and shall include the release of any pollutant into a municipal treatment works. A leak into a secondary containment system which does not involve a release into the waters or lands of this State is not a “discharge” for purposes of applying the rules under this chapter to violations of the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:11-49 et seq. and the rules promulgated pursuant thereto, N.J.A.C. 7:14B.

“Discharge Allocation Certificate” or DAC means the certificate issued by the Department which designates the quantity and quality of pollutants which may be discharged by any person planning to undertake any activity which will result in a discharge to surface water or a substantial modification in a discharge to surface water.

“Discharge Monitoring Report” means the EPA’s uniform national form, as amended, for the reporting of self-monitoring results by permittees, and includes Baseline Reports.

“Discharger” means any person, corporation, municipality, sewerage authority or other entity, who causes or allows any discharge.

“Discharge to surface water” or “DSW” means a direct discharge to surface water as defined in N.J.A.C. 7:9B. DSW does not include a discharge to a DTW.

“Disinfection” means the removal, destruction, or inactivation of pathogenic and indicator organisms.

“Disposal” means the storage, treatment, utilization, processing, resource recovery of, or the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste into or on any land or water so that the solid or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

“Disposal well” means a well used for the disposal of waste into a subsurface stratum.

“Dissolved metal” means that concentration of metal that passes through a 0.45 μm membrane filter.

“District Sludge Management Plan” means the formalized document developed by a Solid Waste Management District under the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., or its designated or delegated lead planning agency(ies) for submission to the State for certification as mandated in the Solid Waste Management Act. The Plan is adopted by the District and approved by the State. The District Sludge Management Plan is comprised of all forms in Appendix K of the Statewide Sludge Management Plan and is divided into four documents: an Inventory and Strategy Document, an Alternatives Document, a Selection Document, and an Implementation Document. For the purposes of the Statewide Sludge Management Plan, the District Sludge Management Plan shall also include the sludge management plans prepared by a sludge generator directed by the Department to plan in the event of District failure to plan.

“Domestic pollutant” means a pollutant which results from the discharge of household, commercial or other wastes from bathrooms, toilet facilities, home laundries and kitchens which are predominantly the result of natural human waste elimination associated with bodily function and food preparation.

“Domestic septage” means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives process wastewater and does not include grease removed from a grease trap.

“Domestic sewage” means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

“Domestic treatment works” or “DTW” means all publicly owned treatment works as well as any privately owned treatment works processing primarily domestic wastewater and pollutants together with any ground water, surface water, storm water or process wastewater that may be present.

“Domestic wastewater” means the liquid waste or liquid borne wastes discharged into a domestic treatment works.

“Draft permit” means a publicly noticed document indicating the Department’s intent to issue, deny, modify, revoke and reissue, revoke, or reissue a permit.

“Dredge spoils” means sediments, known as spoils, removed during dredging operations.

“Dry weight basis” means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (that is, essentially 100 percent solids content).

“Drilling mud” means a heavy suspension used in drilling an injection well, introduced down the drill pipe and through the drill bit.

“EC₅₀” means the median effective concentration of a toxic substance expressed as a statistical estimate of the concentration that has a specified adverse effect on 50 percent of the test organisms under specified test conditions, based on the results of an acute bioassay.

“Effective date of a UIC program” means the date that a State UIC program is approved or established by the Administrator.

“Effluent concentrations consistently achievable through proper operations and maintenance” means:

1. For a given pollutant parameter, the 95th percent value for the 30-day average effluent quality achieved by a treatment works in a period of at least two years, excluding values attributable to upsets, bypasses, operational errors, or other unusual conditions; and

2. A seven-day average value equal to the product of the value derived under paragraph 1 of this definition, multiplied by 1.5.

“Effluent data” means with reference to any source of discharge of any pollutant:

1. Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of any pollutant which has been discharged by the source (or of any pollutant resulting from any discharge from the source), or any combination of the foregoing;

2. Information necessary to determine the identity, amount, frequency, concentration, temperature, or other characteristics (to the extent related to water quality) of the pollutants which, under an applicable standard or limitation, the source was authorized to discharge (including, to the extent necessary for such purpose, a description of the manner or rate of operation of the source); and

3. A general description of the location and/or nature of the source to the extent necessary to identify the source and to distinguish it from other sources (including, to the extent necessary for such purposes, a description of the device, installation, or operation constituting the source).

4. Notwithstanding 1 through 3 above, the following information shall be considered to be “effluent data” only to the extent necessary to allow the Department to disclose publicly that a source is (or is not) in compliance with an applicable standard or limitation, or to allow the Department to demonstrate the feasibility, practicability, or attainability (or lack thereof) of an existing or proposed standard or limitation:

- i. Information concerning research, or the results of research, on any product, method, device, or installation (or any component thereof) which was produced, developed, installed, and used only for research purposes; and

- ii. Information concerning any product, method, device, or installation (or any component thereof) designed and intended to be marketed or used commercially but not yet so marketed or used.

“Effluent limitation” means any restriction on quantities, quality, discharge rates and concentration of chemical, physical, thermal, biological, radiological, and other constituents of pollutants established by permit, or imposed as an interim enforcement limit pursuant to an administrative order, including an administrative consent order.

“Effluent limitation guidelines” means a regulation published by the Administrator under Section 304(b) of the Federal Act.

“Emergency permit” means a permit issued in accordance with N.J.A.C. 7:14A-6.14.

“Epilimnion” means the freely circulating upper region of a thermally stratified waterbody extending from the surface to the thermocline.

“Excessive inflow/infiltration” means the quantities of infiltration/inflow (I/I) which can be economically eliminated from a sewer system as determined in a cost effectiveness analysis that compares the cost for correcting the I/I conditions to the total costs for transportation and treatment of the I/I (see also the definitions for “nonexcessive infiltration” and “nonexcessive inflow”).

“Existing discharge” means a permitted discharge which is not a new source.

“Existing injection well” means an injection well other than a new injection well.

“Existing source” means any source which is not a new source, including presently existing discharges which are not currently permitted.

“Existing uses” means the following:

1. As related to the Ground Water Quality Standards, means those uses of ground water actually attained, whether or not they are included in the Ground Water Quality Standards, N.J.A.C. 7:9-6; and

2. For surface waters, those uses actually attained in the waterbody on or after November 28, 1975, whether or not they are included in the Surface Water Quality Standards, N.J.A.C. 7:9B.

“Facility” or “activity” means any hazardous waste management facility, injection well, NJPDES point source or

treatment works treating domestic sewage, or State approved dredge or fill activity, pursuant to Section 404 of the Federal Act, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA, UIC, NJPDES, or 404 programs.

"Facilities eligible for treatment equivalent to secondary treatment" means treatment works which are eligible for consideration for effluent limitations described for treatment equivalent to secondary treatment if:

1. The BOD₅ and TSS effluent concentrations consistently achievable through proper operation and maintenance of the treatment works exceed the minimum level of the effluent quality set forth in N.J.A.C. 7:14A-12;
2. A trickling filter or waste stabilization pond is used as the principal process; and
3. The treatment works provide significant biological treatment of municipal wastewater.

"Facility-wide permit" means a single permit issued by the Department to the owner or operator of a priority industrial facility incorporating the permits, certificates, registrations, or any other relevant Department approvals previously issued to the owner or operator of the priority industrial facility pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., the Air Pollution Control Act, N.J.S.A. 26:2C-1 et seq., and the appropriate provisions of the Pollution Prevention Plan prepared by the owner or operator of the priority industrial facility pursuant to N.J.S.A. 13:1D-41 and 42.

"Federal Act" means the Clean Water Act or the Federal Water Pollution Control Act" (33 U.S.C. §§ 1251 et seq.) including all subsequent supplements and amendments.

"Feed crops" means crops produced primarily for consumption by animals.

"Fiber crops" means crops produced primarily for the production of plant fiber, but which also can be grown to produce products consumed by humans. Fiber crops include crops such as flax and cotton.

"Final cover," for the purpose of N.J.A.C. 7:14A-20, means the last layer of soil or other material placed on a surface disposal site at closure.

"Final permit decision" means the Department's determination to issue, deny, modify, suspend, or revoke a permit. Such a determination is a final agency action which is deemed pursuant to N.J.S.A. 58:10A-7 to constitute a contested case under the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq.

"Flow proportional composite" means a single sample which receives equal aliquots at equal flow intervals.

"Flow rate" means the volume per time unit given to the flow of gases or other fluid substance which emerges from an orifice, pump, or turbine or passes along a conduit or channel.

"Flow-through bioassay" means a toxicity test in which the test solutions flow into and out of the test chambers on a once-through basis for the duration of the test, in accordance with N.J.A.C. 7:18.

"Fluid" means, for the purposes of N.J.A.C. 7:14A-8, any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas, or any other form or state.

"Food crops" means crops consumed by humans. These include, but are not limited to, fruit, vegetables, and tobacco.

"Food-chain crops" means food crops, fiber crops, and/or feed crops.

"Foreign material" means material contained in a residual which is neither process oriented nor product oriented, or material which is not compatible with land application (for example, aeration piping or Phragmites rhizomes).

"Forest," for the purpose of N.J.A.C. 7:14A-20, means a tract of land thick with trees and underbrush.

"Formation" means a body of rock or unconsolidated sediments characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.

"Formation fluid" means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as "drilling mud."

"Freeboard" means the vertical distance between the top of a surface impoundment and the surface of the waste contained therein.

"Free liquids" means liquids which readily separate from the solid portion of a waste as defined by method 9095 (Paint Filter Liquids Test), as described in Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (EPA Pub. No. SW-846).

"Fresh water(s)" means all nontidal and tidal waters generally having a salinity, due to natural sources, of less than or equal to 3.5 parts per thousand at mean high tide.

“FW” means the general surface water classification applied to fresh waters.

“FW1” means those fresh waters, as designated in N.J.A.C. 7:9B-1.15(h), Table 6, that are to be maintained in their natural state of quality (set aside for posterity) and not subjected to any man-made wastewater discharges or increases in runoff from anthropogenic activities. These waters are set aside for posterity because of their clarity, color, scenic setting, other characteristic of aesthetic value, unique ecological significance, exceptional recreational significance, or exceptional water supply significance.

“FW2” means the general surface water classification applied to those fresh waters that are not designated as FW1 or Pinelands Waters.

“Froude number” means the numerical quantity used to characterize the type of flow in an open channel from which a representative grab sample may be taken for the purposes of this subchapter.

“General permit” means a NJPDES permit authorizing a category of discharges within a geographic area. General permits include permits for similar types of discharges including, but not limited to, stormwater associated with industrial activity, non-contact cooling water, and car dealership car washes.

“Governmental entity” means a Federal, State, interstate agency, county or municipal government or school district whose jurisdiction is partially or entirely within the State.

“Grab sample” means an individual sample collected over a time period of less than 15 minutes.

“Ground water” means that portion of water beneath the land surface that is within the saturated zone.

“Ground Water Quality Standards” means the New Jersey rules at N.J.A.C. 7:9-6 which set forth a designated use or uses for the ground waters of the State, use classifications, water quality criteria for the State’s waters based upon such uses, and the Department’s policies concerning these uses, classifications and criteria.

“Grit and screenings” means solid waste generated during the preliminary treatment of domestic sewage in a treatment works. Grit includes sand, gravel, cinders or other materials with a high specific gravity. Screenings include relatively large materials such as rags typically removed by mechanical screening of domestic wastewater prior to primary or secondary treatment at a DTW.

“Hazardous pollutant” means:

1. Any toxic pollutant;

2. Any hazardous substance as defined by the New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11; or

3. Any substance regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C. §§ 136 et seq.; or

4. Any substance the use or manufacture of which is prohibited under the Federal Toxic Substances Control Act, 15 U.S.C. §§ 2601 et seq.; or

5. Any substance identified as a known carcinogen by the International Agency for Research on Cancer; or

6. Any hazardous waste designated pursuant to the New Jersey Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. or the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq.

“Hazardous substance” means any substance designated under 40 CFR 116 pursuant to Section 311 of the Federal Act, the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq., or Section 4 of the State Act.

“Hazardous waste” means any waste that is defined or identified as a hazardous waste pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., N.J.A.C. 7:26G, or 40 CFR Part 261.

“Headworks analysis” means a mathematical method used to determine the maximum allowable loading of a pollutant at the “headworks” or influent to the treatment plant.

“Heating oil” means any grade of petroleum product including, but not limited to, No. 1, 2, 4 (light and heavy), 5 (light and heavy), and fuel oils, diesel and kerosene or any grade or type used to heat residential buildings.

“Holding time” means the length of the time from collection of the sample until the time of initiation of the analysis.

“Hydraulic jump” means the sudden passage of water in an open channel from low depth to high depth, during which the velocity changes from supercritical ($Fr > 1$) to subcritical ($Fr < 1$), where Fr stands for Froude Number.

“Hypolimnion” means the lower region of a stratified waterbody that extends from the thermocline to the bottom of the waterbody, and is isolated from circulation with the upper waters, thereby receiving little or no oxygen from the atmosphere.

“Illicit connection” means, for purposes of N.J.A.C. 7:14A-25 only, any physical or non-physical connection that discharges the following to a municipal separate storm sewer system (unless that discharge is authorized under a NJPDES permit other than the NJPDES permit for discharges from that system):

1. Domestic sewage;
2. Non-contact cooling water, process wastewater, or other industrial waste (other than stormwater); or
3. Any category of non-stormwater discharges that a permittee for the MS4 identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.26(d)(2)(iv)(B)(1) or 122.34(b)(3)(iii).

Non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system.

“Important species” means species that are commercially valuable (for example, within the top ten species landed, by dollar value); recreationally valuable; threatened or endangered; critical to the organization and/or maintenance of the ecosystem; or other species necessary in the food web for the well-being of the species identified in this definition.

“Impoundment” means a body of water confined by a dam, dike, floodgate, or other barrier.

“Incineration” means the combustion of organic or inorganic matter, or both, at high temperatures in an enclosed device.

“Income” means all sources of revenue from wherever derived, including wages, retirement benefits, consultant fees, interest, and stock dividends.

“Incorporated place” means the District of Columbia, or a city, town, township, or village that is incorporated under the laws of the State in which it is located.

“Indirect discharge” means any discharge, excluding any discharges by municipal collection systems, into any domestic treatment works.

“Indirect user” means an entity with an indirect discharge.

“Individual subsurface sewage disposal system” means a system for the disposal of sewage into the ground, which is designed and constructed to treat sanitary sewage in a manner that will retain most of the settleable solids in a septic tank and discharge the liquid effluent to a disposal field.

“Industrial pollutants” means non-domestic pollutants, including but not limited to, those pollutants regulated under Section 307(a), (b) or (c) of the Federal Act.

“Industrial pretreatment program” means a program designed to regulate the introduction of pollutants into a local agency’s treatment works from any nondomestic source.

“Industrial Pretreatment Program Permit” or “IPP Permit” means authorization, license, or equivalent control document issued by a delegated local agency to implement the requirements of the IPP. An IPP Permit includes a letter of agreement entered into between a delegated local agency and a user of its municipal treatment works, setting effluent limitations and other conditions on the user of the agency’s municipal treatment works.

“Industrial treatment works” means a treatment works which treats primarily process wastewater and/or industrial pollutants as determined by the percentage of process wastewater, or mass loading of BOD, COD or suspended solids in the wastewater flow. Industrial treatment works shall also include any treatment works, whether publicly or privately owned, which treats primarily wastewater or leachate from a municipal solid waste facility or a potable water treatment plant. This definition shall include SIU pretreatment works.

“Industrial waste” means non-domestic waste, including, but not limited to, those pollutants regulated under Section 307(a), (b), or (c) of the Federal Clean Water Act.

“Industrial wastewater treatment system” means any structure or structures by means of which industrial liquid waste or sludges are subjected to any treatment process.

“Industrial water supply” means water used for processing or cooling.

“Infiltration percolation lagoon” means a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to transmit pollutants to the subsurface and which is not an injection well.

“Inhibition concentration” means that concentration of effluent which produces the specified inhibition effect in a chronic whole effluent toxicity test. An IC₂₅ is the concentration of effluent which produces an inhibition of 25 percent for the monitored effect as compared to the control.

“Injection well” means a well, septic system, subsurface disposal bed, cavity, tube or pipe, or any structure used to deliver fluids directly to a point below the ground surface.

“Injection zone” means a geological formation, group of formations, or part of a formation receiving fluids through a well.

“Interference” means:

1. Inhibiting or disrupting the operation of a DTW or its treatment processes so as to contribute to, or cause a violation of any condition of a State or Federal permit;
2. Discharging industrial process wastewater which, in combination with existing domestic flows, is of such quantity and/or quality as to exceed the treatment process design capacity; or

3. Preventing the use or disposal of sludge produced by the DTW in accordance with Section 405 of the Federal Act, the Federal Resource Conservation and Recovery Act (42 U.S.C. §§ 3251 et seq.), the Federal Clean Air Act (42 U.S.C. §§ 7401 et seq.), the Federal Toxic Substances Control Act (15 U.S.C. §§ 2601 et seq.), the Marine Protection, Research and Sanctuaries Act (33 U.S.C. §§ 1401 et seq. and 16 U.S.C. §§ 1431 et seq.), Sections 2, 4 and 6 of the State Act, and any regulations, criteria, or guidelines developed pursuant thereto, including, but not limited to, N.J.A.C. 7:14A-20, and the State-wide Sludge Management Plan.

“Intermittent stream” means a stream with a MA7CD10 flow of less than one-tenth (0.1) cubic foot per second.

“Interstate agency” means an agency of two or more states established by or under an agreement or compact approved by the Congress, or any other agency of two or more states.

“Irreparable harm” means significant undesirable effects occurring after the date of permit issuance which cannot be reversed after cessation or modification of the discharge.

“Joint meeting” means the meeting or assembly of the members of the governing bodies or boards of the several municipalities having authority to make and enter into contracts for the construction jointly of the works or improvements authorized by N.J.S.A. 40:63-70.

“Lake, pond, or reservoir” means any impoundment, whether naturally occurring or created in whole or in part by the building of structures for the retention of surface water, excluding sedimentation control and stormwater retention/detention basins and ponds designed for treatment of wastewater. Lakes, ponds, and reservoirs are characterized by a long term or permanent downgradient restriction of surface water flow from the impoundment and areas of quiescent water within the body of the impoundment. Lakes, ponds, and reservoirs are frequently characterized by greater water depths within the impoundment than either the upgradient or downgradient surface water flow and by shallow water lateral edges containing emergent or submerged plant species. For regulatory purposes, the upgradient boundary of a lake, pond, impoundment, or reservoir shall be considered to be the point at which areas of greater depth and relatively quiescent water can be differentiated from the upgradient surface water input into the impoundment under average flow conditions.

“Landfill” see sanitary landfill.

“Land application” means the controlled discharge of pollutants onto or into the surface soil horizon in such a manner that the materials are treated by and/or become incorporated into and blended with the soil.

“Land application of residual” means the spraying or spreading of residual onto the land surface; the injection of residual below the land surface; or the incorporation of residual into the soil so that the residual can either condition the soil or fertilize crops or vegetation grown in the soil. This definition shall include the land application of sludge and the land application of sewage sludge.

“Land-based sludge management criteria” means those standards established by the Department in the Statewide Sludge Management Plan adopted pursuant to the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., or established pursuant to the Federal Act, or any regulations adopted pursuant thereto.

“Large municipal separate storm sewer system” means all municipal separate storm sewers, other than those owned or operated by the United States, that discharge to surface water and are either:

1. Located in an incorporated place with a population of 250,000 or more as determined by the 1990 Decennial Census by the Bureau of the Census. See 40 CFR Part 122, Appendix F (Newark is listed); or
2. Located in the counties listed in 40 CFR Part 122, Appendix H (No New Jersey counties are listed), except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
3. Owned or operated by a municipality other than those described in paragraph 1 or 2 of this definition and that are designated by the Department as part of the large or medium municipal separate storm sewer system due to the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph 1 or 2 of this definition. In making this determination the Department may consider the following factors:
 - i. Physical interconnections between the municipal separate storm sewers;
 - ii. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph 1 of this definition;
 - iii. The quantity and nature of pollutants discharged to waters of the United States;
 - iv. The nature of the receiving waters; and
 - v. Other relevant factors; or
4. Upon petition, designated by the Department as a large municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a stormwater management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs 1, 2, or 3 of this definition.

"LC₅₀" means the median lethal concentration of a toxic substance, expressed as a statistical estimate of the concentration that kills 50 percent of the test organisms under specified test conditions, based on the results of an acute bioassay.

"Leachate" means liquid that has been in contact with solid waste.

"Leachate collection system" means a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate.

"Lead planning agency (delegated)" means the POTW which, by agreement with the District as defined in the Statewide Sludge Management Plan, is to execute sludge management and planning for that District.

"Letter of Land Application Management Approval" or "LLAMA" means the letter issued by the Department pursuant to N.J.A.C. 7:14A-20 and the Statewide Sludge Management Plan, containing a determination that use of residual or the operations at a residual land application site satisfy the requirements of the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., if operated consistently with the requirements stated within the letter.

"Level of pollutant control actually achieved" means:

1. For conventional and nonconventional pollutants, the effluent concentration consistently achieved through proper operation and maintenance as defined in this section with a 30-day and seven-day average effluent limitation.

2. For toxic pollutants, the effluent limitations based on existing effluent quality as defined at N.J.A.C. 7:14A-13.8 with a 30 day average and a daily maximum effluent limitation.

"Level of treatment" means the degree of waste removal and accompanying residual wastewater effluent to be attained by any discharger.

"Limiting nutrient" means a nutrient whose absence or scarcity exerts a restraining influence upon an aquatic biological population.

"Liner" means a continuous layer of soil or synthetic material which restricts the downward or lateral escape of any waste, waste constituents, or leachate. For the purposes of N.J.A.C. 7:14A-20, a liner shall have a hydraulic conductivity of 1×10^{-7} centimeters per second or less.

"Lithology" means the description of rocks on the basis of their physical, chemical and mineralogical characteristics.

"Load allocation" means the portion of a receiving water's total maximum daily load (TMDL) for a specific pollutant that is allocated to existing or future nonpoint sources of pollution.

"Local agency" means a political subdivision of the State, or an agency or instrumentality thereof, that owns or operates a municipal treatment works.

"Local limits" means any restriction on quantities, quality, or concentrations of pollutants discharged into a local agency's treatment works, developed to prevent upset, interference, or pass-through of pollutants to the treatment works, and to protect worker health and safety, and protect/improve the quality of the sludge generated by the treatment works.

"Log sorting and log storage facilities" means facilities whose discharges result from the holding of unprocessed wood, for example, logs or roundwood with bark or after removal of bark held in self-contained bodies of water (mill ponds or log ponds) or stored on land where water is applied intentionally on the logs (wet decking). (See 40 CFR part 429, subpart I, including the effluent limitations guidelines).

"Long term average effluent concentration" means the statistical estimation of the true mean of the entire population of effluent data points, considering effluent variability and the number of actual data points available to estimate the mean.

"Long term harmonic mean flow" means the number of daily flow measurements divided by the sum of reciprocals of the measured flows. It is the design flow used in calculating pollutant allocations for surface water quality standards which protect for health effects occurring after long term exposures. It is calculated by:

$$\text{Flow} = \frac{n}{\sum \frac{1}{Q_1} + \frac{1}{Q_2} + \dots + \frac{1}{Q_n}}$$

where n is the number of recorded flows and Q is the combined receiving water and effluent flow.

"Lower explosive limit for methane gas," for the purpose of N.J.A.C. 7:14A-20, means the lowest percentage of methane gas in air, by volume, that propagates a flame at 25 degrees Celsius and atmospheric pressure.

"Major facility" means:

1. For industrial facilities, any facility which scores 80 or more points on the NPDES permit rating work sheet using the USEPA rating criteria. A facility with less than the required score of 80 may still be classified as a Major facility by the Regional Administrator or the Department. In those situations, the Department shall state the reasons for doing so; and

2. For municipal facilities, any POTW with a design flow of 1.0 Million Gallons per Day or greater.

“Major modification to a permit” means any change to a permit the scope of which is described in N.J.A.C. 7:14A-16.4.

“Manmade” for purposes of this chapter, means constructed by man.

“Marketable residual product” or “sludge-derived product” means any residual or material derived from a residual which has been prepared for land application of residual in accordance with a permit issued pursuant to N.J.A.C. 7:14A-20 and which, at a minimum, meets the pollutant concentrations in 40 CFR 503.13(b)(1), the Class B pathogen requirements in 40 CFR 503.32 and one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (b)(8).

“Maximum daily discharge limitation” means the highest allowable “daily discharge” during the reporting period.

“Maximum projected effluent concentration” means the maximum effluent concentration that would be expected, based on the maximum reported concentration and the statistical variability of the reported effluent data.

“Maximum sewage treatment capacity” means the hydraulic, biological and sludge handling capacity limitations necessary to assure compliance with the terms and conditions of the NJPDES or NPDES Permit.

“Maximum value” means the highest value measured during the monitoring period.

“Medical waste” means isolation wastes; infectious agents; human blood and blood products; pathological wastes; sharps; body parts; contaminated bedding; surgical wastes and potentially contaminated laboratory wastes; dialysis wastes; and such additional medical items as the Administrator shall prescribe by regulation.

“Medium municipal separate storm sewer system” means all municipal separate storm sewers, other than those owned or operated by the United States, that discharge to surface water and are either:

1. Located in an incorporated place with a population of 100,000 or more but less than 250,000, as determined by the 1990 Decennial Census by the Bureau of the Census. (40 CFR Part 122, Appendix G) (Elizabeth, Jersey City, and Paterson are listed); or
2. Located in the counties listed in 40 CFR Part 122, Appendix I (No New Jersey counties are listed); or
3. Owned or operated by a municipality other than those described in paragraph 1 or 2 of this definition and that are designated by the Department as part of the large or medium municipal separate storm sewer system due to

the interrelationship between the discharges of the designated storm sewer and the discharges from municipal separate storm sewers described under paragraph 1 or 2 of this definition. In making this determination the Department may consider the following factors:

- i. Physical interconnections between the municipal separate storm sewers;
- ii. The location of discharges from the designated municipal separate storm sewer relative to discharges from municipal separate storm sewers described in paragraph 1 above;
- iii. The quantity and nature of pollutants discharged to waters of the United States;
- iv. The nature of the receiving waters; or
- v. Other relevant factors; or

4. The Department may, upon petition, designate as a medium municipal separate storm sewer system, municipal separate storm sewers located within the boundaries of a region defined by a stormwater management regional authority based on a jurisdictional, watershed, or other appropriate basis that includes one or more of the systems described in paragraphs 1, 2, or 3 above.

“Membrane filter technique” means the method used to analyze for bacteria (that is, coliform bacteria) which utilizes sample filtration to trap bacterial organisms on a membrane filter.

“Memorandum of Agreement” means the agreement entered into under the Federal Act between the Administrator and the Commissioner, governing the relationship, duties, and rights of the parties in operating State NPDES and UIC programs (NJPDES).

“Minimum value” means the lowest data value measured during the monitoring period.

“Minor facility” means any facility or activity not classified a “major facility” by the Regional Administrator or the Department.

“Minor modification” means a change to a permit which does not constitute a major modification pursuant to N.J.A.C. 7:14A-16.4.

“Mixing zones” means areas of surface waters at or near the discharge location, as may be designated by the Department, into which wastewater effluents may be discharged for the purpose of mixing, dispersing, or dissipating such effluents.

“Monitoring report form” means the standard Department form, including any subsequent additions, revisions or modifications, for the reporting of self-monitoring results by permittees.

"Monthly" means one normal operating day each calendar month, on which, a reasonably representative sample of the discharge may be obtained. This day should be the same day every month (for example, the 2nd Tuesday of each month), unless otherwise directed in the permit. A normal operating day shall be a period of time reasonably representative of normal operating conditions.

"Monthly minimum percent removal" means the lowest percentage obtained for any single sampling event performed during the calendar month (minimum percent removal limitation).

"Monthly monitoring" means monitoring conducted at a minimum of once every calendar month.

"Most probable number" means the statistical estimate of bacterial densities used for reporting results from the multiple-tube fermentation technique.

"Multiple grab composite" means a combination of individual samples (aliquots) collected at a specific frequency over a specified time period. Each aliquot shall be analyzed individually before being combined into a single composite sample. The recorded values will be both the individually analyzed aliquots and the composite sample.

"Municipal authority" means a municipal authority as defined in the Municipal and County Utilities Authorities Law at N.J.S.A. 40:14B-3(5), and shall include a municipal utilities authority created by one or more municipalities and a county utilities authority created by a county.

"Municipality" means a city, town, borough, county, parish, district, association or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under Section 208 of the Federal Act (33 U.S.C. § 1288), except as provided at N.J.A.C. 7:14A-25.1(b).

"Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned or operated by the United States, an interstate agency, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe organization, or a designated and approved management agency under section 208 of the CWA (33 U.S.C. § 1288) that discharges to surface water or groundwater;

2. Designed and used for collecting or conveying stormwater;

3. Which is not a combined sewer;

4. Which is not part of a POTW; and

5. Which is not either of the following:

- i. A separate storm sewer(s) that is at an industrial facility, and that collects or conveys stormwater discharges associated with industrial activity that occurs at that facility; or

- ii. A separate storm sewer(s) that is at a construction site, and that collects or conveys stormwater discharges associated with small construction activity that occurs at that site.

"Municipal separate storm sewer system" or "MS4" means a "large," "medium" or "small" municipal separate storm sewer system as defined in this section.

"Municipal treatment works" means the treatment works of any municipality, county, or State agency or any agency or subdivision created by one or more municipal, county, or State governments and the treatment works of any public utility as defined in N.J.S.A. 48:2-13.

"National Pollutant Discharge Elimination System" or "NPDES" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Federal Act. The term includes any State program which has been approved by the Administrator.

"National Pretreatment Standard" means any regulation containing pollutant discharge limits promulgated by the USEPA in accordance with Section 307 (b) and (c) of the Federal Act, which applies to Indirect Users. This term includes prohibitive discharge limits established pursuant to 40 CFR 403.5.

"Natural flow" means the water flow that would exist in a waterway without the addition of flow of artificial origin.

"Natural water quality" means the water quality that would exist in a waterway or a waterbody without the addition of water or waterborne substances of artificial origin.

"New discharger" means any building, structure, facility, or installation:

1. From which there is or may be a discharge of pollutants;

2. Was not an existing source prior to August 13, 1979;

3. Which is not a new source; and

4. Which has never received a final NJPDES permit for discharges at that site.

This definition includes an indirect user which commences discharging into waters of the State after August 13, 1979. It also includes any existing mobile point source (other than an offshore or coastal oil and gas exploratory drilling rig) such as a seafood processing rig, seafood processing vessel, or aggregate plant, that begins discharging at a site for which it does not have a permit; and any offshore or coastal mobile oil and gas exploratory drilling rig or coastal mobile oil and gas development drilling rig that commences the discharge of pollutants after August 13, 1979, at a site for which it is not covered by an individual or general permit and which is located in an area determined by the Department in the issuance of the final permit to be an area of biological concern. In determining whether an area is an area of biological concern, the Department shall consider the factors specified in 40 CFR 125.122(a)(1) through (1).

An offshore or coastal mobile exploratory drilling rig or coastal mobile developmental drilling rig will be considered a new discharger only for the duration of its discharge in an area of biological concern.

"New injection well" means an injection well which begins injection after, August 15, 1983, the date New Jersey became authorized to implement the NPDES/UIC Program, as specified in 40 CFR 147.1550, Subpart FF.

"New Jersey Pollutant Discharge Elimination System" or "NJPDES" means the New Jersey system for the issuance of permits pursuant to the State Act.

"New source" means any building, structure, facility, or installation, from which there is or may be a discharge of pollutants, the construction of which commenced:

1. After promulgation of standards of performance under Section 306 of the Federal Act which are applicable to such source;
2. After proposal of standards of performance in accordance with Section 306 of the Federal Act, which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal; or
3. After the publication of the Pretreatment Standards under Section 307(c) of the Act which will be applicable to such source if such Standards are thereafter promulgated in accordance with that section, provided that:
 - i. The building, structure, facility or installation is constructed at a site at which no other source is located;
 - ii. The building, structure, facility or installation totally replaces the process or production equipment that cause the discharge of pollutants at an existing source; or
 - iii. The production or wastewater generating processes of the building, structure, facility or installation are substantially independent of an existing source at

the same site. In determining whether these are substantially independent, factors such as the extent to which the new facility is integrated with the existing plant, and the extent to which the new facility is engaged in the same general type of activity as the existing source should be considered.

4. Construction of a new source as defined under this definition has commenced if the operating entity has:

i. Begun, or caused to begin as part of a continuous onsite construction program:

(1) Any placement, assembly, or installation of facilities or equipment; or

(2) Significant site preparation work including clearing, excavation, or removal of existing buildings, structures, or facilities which is necessary for the placement, assembly, or installation of new source facilities or equipment; or

ii. Entered into a binding contractual obligation for the purchase of facilities or equipment which are intended to be used in its operation within a reasonable time. Options to purchase or contracts which can be terminated or modified without substantial loss, and contracts for feasibility, engineering, and design studies do not constitute a contractual obligation under this definition.

"Nitrogenous biochemical oxygen demand" or "NBOD" means that portion of the biochemical oxygen depletion either in an effluent or in a waterbody which is due to the oxidation of nitrogen containing compounds.

"No observed adverse effect concentration" or "NOAEC" means the lowest concentration at which the organisms are adversely affected as compared to the control determined using hypothesis testing technique.

"No observable effect concentration" or "NOEC" means the maximum effluent concentration which results in no observable effect for the evaluated end-point. The NOEC is usually determined as the next lower tested concentration than the concentration which results in the lowest observable effect as compared to the controls. For discharge permits where the limitation is expressed as an NOEC, the results shall be reported as the calculated IC_{25} and shall be considered equivalent to the observed NOEC.

"No measurable acute toxicity" or "NMAT" means a type of water quality based acute whole effluent toxicity limit imposed in accordance with N.J.A.C. 7:9B-4.6(c)5i(2), which requires that no mortality occurs in any acute toxicity test concentration, including 100 percent effluent, above normal background mortality levels for the test organism population. The normal background mortality level is the acceptable level of control mortality for a valid test specified in N.J.A.C. 7:18-6.6(v).

“Non-contact cooling water” means water used to reduce temperature for the purpose of cooling. Such waters do not come into direct contact with any raw material, intermediate product (other than heat) or finished product. Non-contact cooling water may however contain algaecides, or biocides to control fouling of equipment such as heat exchangers, and/or corrosion inhibitors.

“Non-conventional pollutant” means any pollutant not defined as a conventional pollutant or a toxic pollutant.

“Non-delegated local agency” means a local agency which does not have an industrial pretreatment program approved by the Department.

“Nonexcessive infiltration” means the quantity of flow which is less than 120 gallons per capita per day (domestic base flow and infiltration) or the quantity of infiltration which cannot be economically and effectively eliminated from a sewer system as determined in a cost-effectiveness analysis. For domestic treatment works receiving wastewater from combined sewers, nonexcessive infiltration means the quantity of flow attributable to infiltration during dry weather shall be less than 40 gallons per capita per day (gpcd) or 1,500 gallons per day per inch diameter per mile of sewer.

“Nonexcessive inflow” means the maximum total flow rate during storm events which does not result in chronic operational problems related to hydraulic overloading of the treatment works or which does not result in a total flow of more than 275 gallons per capita per day (domestic base flow plus infiltration plus inflow) during a significant rainfall event which causes surface ponding and surface runoff. Chronic operational problems may include surcharging, backups, bypasses, and overflows.

“Non-hazardous waste” means a solid waste which is not a hazardous waste.

“Nonpersistent” means degrading relatively quickly, generally having a half-life of less than 96 hours.

“Nonpoint source” means:

1. Any man-made or man-induced activity, factor, or condition, other than a point source, from which pollutants are or may be discharged;
2. Any man-made or man-induced activity, factor, or condition, other than a point source, that may temporarily or permanently change any chemical, physical, biological, or radiological characteristic of waters of the State from what was or is the natural, pristine condition of such waters, or that may increase the degree of such change; or
3. Any activity, factor, or condition, other than a point source, that contributes or may contribute to water pollution.

“Nontrout waters” means fresh waters that have not been designated in N.J.A.C. 7:9B-1.15(c) through (h) as trout production or trout maintenance. These waters are generally not suitable for trout because of their physical, chemical, or biological characteristics, but are suitable for a wide variety of other fish species.

“Nutrient” means a chemical element or compound, such as nitrogen or phosphorus, which is essential to and promotes the growth and development of organisms.

“Ocean waters” means those waters of the open seas lying seaward of the base line from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone.

“Oil and grease” includes the nonpetroleum-based pollutants of animal and vegetable origin, and petroleum-based pollutants, which are analyzed by an EPA and/or New Jersey State Certified Laboratory approved method for oil and grease referenced in 40 CFR Part 136, as amended, including subsequent amendments, and the petroleum-based pollutants analyzed by an EPA and/or New Jersey State Certified Laboratory approved method for petroleum hydrocarbons cited in Methods for Chemical Analysis of Water and Wastes, USEPA, as amended.

“Open channel” means any natural or artificial waterway or closed conduit, including a gravity sewer, in which water flows with a free surface.

“Operating entity” or “operator” means any person who alone or along with other persons has primary management and operational decision-making authority over any part of a facility. This definition is not applicable to “operator” as that term is used in N.J.A.C. 7:14A-4.9(b)2, 22.6(a)4, 22.6(c)3, 23.25(a)3, or 23.25(a)4i.

“Other container” means either an open or closed receptacle that has a load capacity of one metric ton or less and may include, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer.

“Outfall” means any point source which discharges directly to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.

“Outstanding National Resource Waters” means high quality waters that constitute an outstanding national resource (for example, waters of National/State Parks and Wildlife Refuges and waters of exceptional recreational or ecological significance) as designated in N.J.A.C. 7:9B-1.15(i).

“Owner or operator” means the owner or operator of any facility or activity subject to this chapter.

“Overburden” means any material of any nature, consolidated or unconsolidated, that overlies a mineral deposit, excluding topsoil or similar naturally-occurring surface materials that are not disturbed by mining operations.

“Overland flow” means the controlled discharge, by spraying or other means, of pollutants onto sloping land with maintained vegetation where a proportion of the wastewater may appear as runoff. Overland flow is also the movement of pollutants across the surface of the land where infiltration may occur.

“Packer” means a device lowered into a well to produce a fluid-tight seal.

“Participating municipality” means a municipality or other body which is a member of an affected sewerage entity or which has contracted to obtain sewage treatment services from a sewerage entity or other domestic treatment works.

“Passaic Valley Sewerage Commissioners” means the body described by that name under N.J.S.A. 58:14-2.

“Pass through” means a discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW’s NJPDES permit (including an increase in the magnitude or duration of a violation).

“Pasture” means, for the purpose of N.J.A.C. 7:14A-20, land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

“Pathogen-free material” means a residual material generated from non-domestic processes where there is no contact with human wastes, animal wastes or other wastes which may contain pathogenic organisms. Pathogen-free material may include, but is not limited to, water treatment plant residual and certain types of food processing residual.

“Pathogenic organisms” means disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

“Percent removal” means a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

“Performance based limitations” means effluent limitations calculated using the existing effluent quality or the anticipated performance of a facility.

“Periodic report” means compliance monitoring report required pursuant to N.J.A.C. 7:14A-21.3(f).

“Permit” means an authorization, license, or equivalent control document issued by the Department or a delegated local agency to implement the requirements of this chapter even where any or all of the conditions of the permit have been stayed. Permit does not include any permit which has not yet been the subject of final agency action, such as a “draft permit”. Permit includes a letter of agreement entered between a delegated local agency and a user of its municipal treatment works, setting effluent limitations and other conditions on the user of the agency’s municipal treatment works. Permit also includes a general permit and a permit-by-rule.

“Permit by rule” means a provision of this chapter stating that a “facility or activity” is deemed to have a NJPDES permit if it meets the requirements of the applicable regulations.

“Permitted flow” means a treatment work’s maximum allowable flow (usually in million gallons per day, or other appropriate unit of flow such as gallons per day) as stated in the facility’s NJPDES Permit or TWA, which ever is more stringent.

“Permittee” means any person authorized to conduct activity pursuant to a permit.

“Permitting authority” means, for the purpose of N.J.A.C. 7:14A-20, either EPA or a State with an EPA-approved sewage sludge management program.

“Persistent” means relatively resistant to degradation, generally having a half life of over 96 hours.

“Person” means an individual, corporation, company, partnership, firm, association, owner or operator of a treatment works, political subdivision of this State and any state, Federal or interstate agency or an agent or employee thereof. “Person” shall also mean any responsible corporate official for the purpose of enforcement action under Section 10 of the State Act.

“Person who prepares residual” means either the person who generates a residual during the treatment of domestic sewage and/or process wastewater in a treatment works or the person who derives a material from the residual. This definition also includes a person who prepares sludge or a person who prepares sewage sludge.

“Petroleum hydrocarbons” or “petroleum-based oil and grease” includes the petroleum-based pollutants analyzed by an EPA and/or New Jersey State Certified Laboratory approved method for petroleum hydrocarbons cited in Methods for Chemical Analysis of Water and Wastes, USEPA, as amended.

"Pinelands waters" means all waters within the boundaries of the Pineland Area, except those waters designated as FW1 in N.J.A.C. 7:9B-1.15(h) Table 6, as established in the Pinelands Protection Act, N.J.S.A. 13:18A-1 et seq., and as shown on Plate 1 of the "Comprehensive Management Plan" adopted by the New Jersey Pinelands Commission in November 1980.

"Plugging" means the act or process of stopping the flow of water, oil, or gas in a formation penetrated by a borehole or well.

"Plugging record" means a systematic listing of permanent or temporary abandonment of water, oil, gas, test, exploration and waste injection wells, and may contain a well log, description of amounts and types of plugging material used, the method employed for plugging, a description of formations which are sealed and a graphic log of the well showing formation location, formation thickness, and location of plugging structures.

"Point source" means any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Pollutant" means any dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, medical wastes, radioactive substance (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. §§ 2011 et seq.)), thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, agricultural, and construction waste or runoff or other residue discharged directly or indirectly to the land, ground waters or surface waters of the State, or to a DTW. "Pollutant" includes both hazardous and nonhazardous pollutants.

"Pollutant limit" means, for the purpose of N.J.A.C. 7:14A-20, a numerical value that describes the amount of a pollutant allowed per unit amount of residual (for example, milligrams of pollutant per kilogram of total solids); the amount of a pollutant that can be applied to a unit area of land (for example, kilograms of pollutant per hectare); or the volume of a material that can be applied to a unit area of land (for example, gallons per acre.)

"Pond" see the definition for lake.

"Pressure" means the total load or force per unit area acting on a surface.

"Pretreatment" means the reduction in the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a DTW. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes or by other means, except by dilution. Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the DTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with 40 CFR 403.6(e) (the Combined Wastestream Formula).

"Pretreatment Act" means the Pretreatment Standards for Sewerage, N.J.S.A. 58:11-49 et seq.

"Pretreatment program significant noncompliance" or "PPSNC" means non-compliance by a source of indirect discharge which requires notification pursuant to 40 CFR 403.8(f)(2)(vii).

"Pretreatment standard" means any limitation on quantities, quality, rates, or concentrations of pollutants discharged into municipal or privately owned treatment works, adopted pursuant to the Pretreatment Act, Section 4 of the State Act, or any applicable National, State, or local regulations.

"Primary contact recreation" means water-related recreational activities that involve significant ingestion risks and includes, but is not limited to, wading, swimming, diving, surfing, and water skiing.

"Primary industry category" means any industry category listed in the NRDC settlement agreement (*National Resources Defense Council et al. v. Train*, 8 E.R.C. 2120 (D.D.C. 1976), modified 12 E.R.C. 1833 (D.D.C. 1979)); also listed in N.J.A.C. 7:14A-4—Appendix B, Table 1.

"Primary liner" means a liner consisting of synthetic material designed to prevent the flow of liquid from surface impoundments. A primary liner shall have properties of such a nature so as to impede the flow of liquids from surface impoundments throughout their active life, closure, and post-closure periods. Typically, a liner meeting these criteria will be at least 30 mil (0.03 inches) in thickness.

"Privately owned treatment works" means any device or system which is:

1. Used to treat wastes from any facility whose operator is not the operator of the treatment works; and
2. Is not a "POTW."

"Process wastewater" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Process wastewater includes, but is not limited to, leachate and cooling water other than non-contact cooling water. This definition includes the terms commercial wastewater and industrial wastewater as used in 40 CFR Part 503.

"Projected flow" means that flow which is estimated or anticipated to be generated from a facility, based upon the criteria contained in N.J.A.C. 7:14A-23.

"Property" means, for the purposes of N.J.A.C. 7:14A-8.1(b)iv, all the contiguous block(s) and lots(s), including vacant land owned or otherwise under the control of the owner or operator of the regulated facility, upon which a discharge is conducted or controlled as a result of the operation of a facility.

"Proper operations and maintenance" means the activities required to assure the dependable and economical function of a treatment works.

1. Operation means the control of the unit processes and equipment which make up the treatment works, including financial and personnel management, records, laboratory control, process control, safety and emergency operation planning.

2. Maintenance means the preservation of functional integrity and efficiency of equipment and structures. This includes preventative maintenance, corrective maintenance and replacement of equipment as needed.

"Proprietary information" means commercial or financial information which is used in one's business and is of a type customarily held in strict confidence or regarded as privileged and not disclosed to any member of the public by the person to whom it belongs.

"Public contact site" means, for the purpose of N.J.A.C. 7:14A-20, land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.

"Public hearing" is a hearing before a representative of the Department which provides the opportunity for public comment, but which does not include cross-examination.

"Publicly owned or operated" means owned or operated by the State, a county, a municipality, or other public body.

"Publicly owned treatment works" or "POTW" means any device or system used in the storage and treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment. Treatment works associated with potable water treatment and solid waste facilities shall be considered industrial treatment works for purposes of this chapter.

"Quarterly monitoring" means monitoring conducted at a minimum frequency of once every three calendar months.

"Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2, or exceed the "Criteria for Identifying and Applying Characteristics of Hazardous Waste and for Listing Hazardous Waste" in 40 CFR Part 261, whichever is applicable.

"Range land" means, for the purpose of N.J.A.C. 7:14A-20, open land with indigenous vegetation.

"RCRA" means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. §§ 6901 et seq.

"Reclamation site" means drastically disturbed land that is reclaimed using residual. This includes, but is not limited to, strip mines and construction sites.

"Regional Administrator" means the Regional Administrator of the appropriate Regional Office of the USEPA or an authorized representative of the Regional Administrator.

"Regional pump station" means any wastewater pumping station which conveys wastewater from more than one municipality or from at least 25 percent of a single municipality's sewer service area, and has a design capacity of at least 0.5 MGD.

"Reissuance of a permit" means the process of issuing a NJPDES permit after a permit has been revoked, or the process of renewing a permit.

"Remediation effluent standards" means the set of effluent limitations in N.J.A.C. 7:14A-12 Appendix C which have been developed using a specified technology and which are used for limitations for remediation projects in the absence of an adopted TMDL.

"Request for authorization" is the document submitted under N.J.A.C. 7:14A-6.13 to obtain authorization to discharge under a general permit.

"Reservoir" see the definition for lake.

"Residual" means a solid waste that consists of the accumulated solids and associated liquids which are by-products of a physical, chemical, biological, or mechanical process or any other process designed to treat wastewater or any other discharges subject to regulation under the State Act. For purposes of this chapter, residual includes, but is not limited to, marketable residual product, sludge and sewage sludge. Residual excludes screened vegetative waste and grit and screenings.

"Residual land application site" means the site used for land application of residual.

"Residual leachate collection system" means a system or device installed immediately above a liner that is designed, constructed, maintained, and operated to collect and remove leachate from a surface disposal site. This definition includes a sewage sludge leachate collection system.

“Residual-only facility” means any treatment works treating domestic sewage whose methods of sludge use or disposal are required to obtain a permit under 40 CFR 122.1(b)(3) or N.J.A.C. 7:14A-20. This term shall also apply to any treatment works whose method of residual use or disposal is required to obtain a permit under N.J.A.C. 7:14A-20.

“Residual stabilization” means the reduction of the volatile and putrescible fraction of sludge with attendant reduction in the numbers of pathogens. Residual stabilization processes include, but are not limited to, digestion, composting, heat treatment, and alkaline stabilization.

“Residual transport container” means a leakproof, closed, modular receptacle which is maintained in a nuisance-free manner, including, but not limited to, containing residual and odor.

“Residual use or disposal practice” means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of residual. This definition includes a sewage sludge use or disposal practice.

“Revocation of a permit” means the process of terminating of a permit.

“Reynolds number” means the numerical quantity used to characterize the type of flow in a closed conduit from which a representative grab sample may be taken for the purposes of this subchapter.

“River mile” or “R.M.” means the distance, measured in statute miles, between two locations on a stream, with the first location designated as mile zero. For example, mile zero for the Delaware River is located at the intersection of the center line of the navigation channel and a line between the Cape May Light, New Jersey, and the tip of Cape Henlopen, Delaware.

“Rock crushing and gravel washing facilities” means facilities which process crushed and broken stone, gravel, and riprap (See 40 CFR part 436, subpart B, including the effluent limitations guidelines).

“Runoff” means, for the purpose of N.J.A.C. 7:14A-20, rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off of the land surface.

“Runoff coefficient” means the fraction of total rainfall that will appear at a conveyance as runoff.

“Saline waters” means waters having salinities generally greater than 3.5 parts per thousand at mean high tide.

“Sanitary landfill” means a solid waste facility, as defined in N.J.A.C. 7:26, at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal or storage for a period of time exceeding six months, except that it shall not include any waste facility approved for disposal of hazardous waste pursuant to N.J.A.C. 7:26.

“Sanitary sewage” means any liquid waste containing animal or vegetable matter in suspension or solution, or the water carried wastes resulting from the discharge of water closets, laundry tubs, washing machines, sinks, dishwashers, or any other source of water carried waste of human origin or containing putrescible material. This term specifically excludes industrial, hazardous or toxic wastes and materials.

“Saturated zone” or “zone of saturation” means that part of the earth’s crust in which all voids are filled with water.

“Schedule of compliance” or “compliance schedule” means a schedule of remedial measures including an enforceable sequence of actions, operations leading to compliance with water quality standards, an effluent limitation or other limitation, prohibition or standard.

“Seasonal high water table” means the maximum level to which ground water will be normally expected to rise due to the effects of natural precipitation and infiltration of water.

“Secondary contact recreation” means recreational activities where the probability of water ingestion is minimal and includes, but is not limited to, boating and fishing.

“Secondary liner” is a liner consisting of either soil or earthen materials at least three feet (0.91 meters) in thickness with a saturated hydraulic conductivity under maximum hydrostatic head conditions not more rapid than 1×10^{-7} centimeters per second, or synthetic material at least 30 millimeters (0.03 inches) in thickness designed to prevent the flow of liquid from surface impoundments. A secondary liner shall have properties of such a nature so as to ensure the prevention of the flow of liquids from surface impoundments throughout their active life, closure, and post-closure periods.

“Secretary” means the Secretary of the Army, acting through the Chief of Engineers.

“Sediment oxygen demand” means that portion of the oxygen depletion present in a receiving waterbody which is due to the substrate present in the waterbody.

“Separate sewer system” means a sewer system that is designed to only carry sanitary sewage and not designed to collect and transport stormwater from streets and other sources, thus serving a combined purpose.

“Separate storm sewer” means a conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, gutters, ditches, man-made channels, or storm drains):

1. Designed or used for collecting or conveying stormwater;
2. Which is not part of a combined sewer system; and

3. Which is not part of a publicly owned treatment works (POTW).

“Septage” means the liquid and solid material pumped from a septic tank, cesspool, or similar domestic sewage treatment system, or a holding tank when the system is cleaned or maintained.

“Serious violation” means an exceedance, as set forth in a permit, administrative order, or administrative consent agreement, including interim enforcement limits, as follows:

1. For effluent limitations for pollutants that are measured by concentration or mass, except for whole effluent toxicity;

i. Violations of an effluent limitation that is expressed as a monthly average;

(1) By 20 percent or more for a hazardous pollutant; and

(2) By 40 percent or more for a nonhazardous pollutant;

ii. Violations of an effluent limitation that is expressed as a daily maximum or daily minimum without a monthly average;

(1) By 20 percent or more of the average of all of the daily maximum or minimum values for hazardous pollutant; and

(2) By 40 percent or more of the average of all of the daily maximum or minimum values for a nonhazardous pollutant;

2. For effluent limitations for whole effluent toxicity as follows:

i. For any violation of an LC₅₀ or a NOEC limit when, upon subtracting the toxicity test result from the whole effluent toxicity limit, the difference is as follows:

Whole Effluent Toxicity Limit (Percent Effluent)	Difference (Percent Effluent)
Greater than or equal to 80 and less than or equal to 100	Greater than or equal to 20
Greater than or equal to 50 and less than 80	Greater than or equal to 15
Greater than 10 and less than 50	Greater than or equal to 10
Less than or equal to 10	Greater than or equal to 9

ii. For any violation of whole effluent toxicity limitations expressed as no measurable acute toxicity (NMAT) with greater than or equal to 50 percent mortality in any test concentration, including 100 percent effluent; and

3. The greatest violation of a pH effluent range in any one calendar day which violation deviates from the midpoint of the range by at least 40 percent of the midpoint of the range excluding the excursions specifically excepted by a NJPDES permit with continuous pH monitoring. For example: Assuming that a permittee’s effluent limitation range for pH is 6.0 to 9.0, the midpoint would be 7.5.

If the five separate readings of pH during a given day were 4.3, 5.8, 6.5, 6.0 and 6.5, the reading of 4.3 would be a serious violation as follows:

$$\frac{7.5 \text{ (midpoint)} - 4.3 \text{ (greatest exceedance)} \times 100}{7.5 \text{ (midpoint)}} = 42.6\%$$

For example: Using the same information as above. Forty percent of 7.5 is 3; therefore, if the greatest violation of a pH effluent range for any calendar day has a pH of 4.5 or less or a pH of 10.5 or greater, the violation would be a “serious violation.”

4. Notwithstanding the above, the Department may utilize, on a case-by-case basis, a more stringent factor of exceedance to determine a serious violation if the Department states the specific reasons therefore, which may include the potential for harm to human health or the environment.

“Soil erosion and sediment control plan” means a plan which indicates land treatment measures, including a schedule of the timing for their installation, to minimize soil erosion and sediment in accordance with the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq.

“Seven day average value” means the greatest sum of all daily discharges measured during any seven consecutive days, divided by the number of daily discharges measured during that period. Results are commonly expressed in loading (kg/day) and/or concentration (mg/L).

“Severe property damage” means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

“Sewage” means any wastes, including wastes from humans, households, commercial establishments, industries, and stormwater runoff, that are discharged to or otherwise enter a DTW.

“Sewage authority” see sewerage entity.

“Sewage from vessels” means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes that are discharged from vessels, including graywater and regulated under Section 312 of the Federal Act or under the State Act. For the purposes of this definition, “graywater” means galley, bath, and shower water.

“Sewage sludge” means the solid, semi-solid, or liquid residue generated by the processes of a domestic treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and any material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

“Sewage sludge use or disposal practice” means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

“Sewerage authority” means a sewerage authority created pursuant to the Sewerage Authorities Law, N.J.S.A. 40:14A-1 et seq.

“Sewerage entity” means a county or municipal utilities authority, municipality, corporation, or other legal entity which owns or operates a sewerage facility (that is, a sewage authority).

“Sewer extension” means any sewer pipe, line, structure or appurtenance used for the conveyance of domestic or industrial waste of a liquid nature, whether forced or by gravity, which:

1. Will extend along an easement through more than two properties, a roadway, or public right-of-way;
2. Conveys flows from more than two buildings; or
3. Conveys, or will convey, 8,000 gallons per day or more of sewage flow determined in accordance with the criteria specified in N.J.A.C. 7:14A-23.3. This includes all sewer lines from a single building if the building utilizes more than one sewer line to convey waste to the sewer system and the aggregate waste flow is 8,000 gallons per day or more.

“Sheen” means an iridescent appearance on the surface of water.

“Shellfish” means those mollusks commonly known as clams, oysters, or mussels.

“Shellfish waters” means waters classified as Approved, Seasonally Approved, Special Restricted, Seasonally Special Restricted or Condemned that support or possess the potential to support shellfish which are within the Coastal Area Facility Review Act (CAFRA) zone as delineated in 1973, (excluding: 1—The Cohansey River upstream of Brown’s Run; 2—The Maurice River upstream of Route 548; 3—The Great Egg Harbor River upstream of Powell Creek; 4—The Tuckahoe River upstream of Route 50; 5—The Mullica River upstream of the Garden State Parkway) plus the adjacent areas between Route 35 (from its juncture with the CAFRA zone just north of Red Bank to its juncture with the CAFRA zone just south of Keyport) and the CAFRA zone and the area from the C.A.F.R.A. zone on the south northwesterly along Route 35 to the northern shore of the Raritan River, then easterly along the northern shore of the Raritan River to the southeast point of Perth Amboy, then due east to the New Jersey jurisdictional limit, and seaward along the jurisdictional limit to the Atlantic Ocean.

“Significant biological treatment” means the use of an aerobic or anaerobic biological treatment process in a treatment works to consistently achieve a 30-day average of at least 65 percent removal of BOD₅.

“Significant indirect user” or “SIU” means, solely for the purposes of this chapter:

1. Any user in the State including, but not limited to, any significant industrial user as defined in 40 CFR 403.3(t) but excluding municipal collection systems, who discharges wastewater into a local agency where:

- i. The user is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N;

- ii. The user’s average volume of process wastewater exceeds 25,000 gallons per day;

- iii. The amount of BOD, COD or Suspended Solids in the industrial process wastewater discharge exceeds the mass equivalent of 25,000 gallons per day of the domestic waste of the affected local agency;

- iv. The volume of industrial process wastewater in the discharge exceeds five percent or more of the average daily dry weather flow of the local agency;

- v. The user’s discharge of process wastewater contributes, five percent or more of the daily mass loading of any of the pollutants listed in N.J.A.C. 7:14A-4, Appendix A Tables II through V;

- vi. The user is designated as an SIU by the control authority on the basis that the user has a reasonable potential for adversely affecting the local agency’s operation;

- vii. The user is designated as an SIU by the control authority on the basis that the user has been in violation of any Federal, State, or local pretreatment standard or requirement, including, but not limited to, significant noncompliance as defined in 40 CFR 403.8(f)(2)(vii); or

- viii. The control authority determines it would be consistent with the intent of the Pretreatment Act or State Act to require a permit for the indirect user; and

2. Any user in areas of the State in which the Department is the control authority where:

- i. The user is determined to be a hazardous waste facility that received a permit in accordance with N.J.A.C. 7:26G-12;

- ii. The user’s discharge consists of landfill leachate, which is either pure, treated, or diluted; or

- iii. The user’s discharge consists of 25,000 gallons per day or more of process wastewater and/or polluted ground water which is pumped from the ground in order to decontaminate an aquifer; however

3. Upon finding that any user in the State has no reasonable potential for adversely affecting the local agency's operation or for violating any Federal, State, or local pretreatment standard or requirement, the control authority may at any time, on its own initiative or in response to a petition received from a user or a local agency, and in accordance with 40 CFR 403.8(f)(6), determine that any user specified in paragraphs 1 or 2 above, unless the user is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, is not a significant indirect user.

"Significant materials" means, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges.

"Significantly more stringent limitations" means BOD₅ and TSS limitations necessary to meet the percent removal requirements of at least five mg/l more stringent than the otherwise applicable concentration-based limitations (for example, less than 25 mg/l in the case of the secondary treatment limits for BOD₅ and TSS), or the percent removal limitations in N.J.A.C. 7:14A-12, if such limit as would, by themselves, force significant construction or other significant capital expenditure.

"Significant noncomplier" or "SNC" means any person, except a local agency for an exceedance of an effluent limitation for flow, who commits any of the violations described below, unless the Department uses, on a case-by-case basis, a more stringent frequency or factor of exceedance to determine a significant noncomplier and the Department states the specific reasons therefor, which may include the potential for harm to human health or the environment. Violations which cause a person to become or remain an SNC include:

1. A serious violation for the same pollutant, at the same discharge point source, in any two months of any consecutive six month period;
2. Exceedance of an effluent limitation expressed as a monthly average, for the same pollutant, at the same discharge point source, by any amount in any four months of any consecutive six month period;
3. If there is not an effluent limitation for a particular pollutant expressed as a monthly average, exceedance of the monthly average of the daily maximums for the effluent limitation, for the same pollutant, at the same discharge point source, by any amount in any four months of any consecutive six month period;

4. Any exceedance of an effluent limitation for pH by any amount, excluding the excursions specifically excepted by a NJPDES permit with continuous pH monitoring, at the same discharge point source in any four months of any consecutive six month period; or

5. Failure to submit a completed discharge monitoring report in any two months of any consecutive six month period.

"Significant portion of income" means 10 percent or more of gross personal income for a calendar year, except that it means 50 percent or more of gross income for a calendar year if the recipient is over 60 years of age and is receiving that portion under retirement, pension, or similar arrangement.

"Silviculture" means the management of forest land for timber. This practice sometimes contributes to water pollution as in clear-cutting.

"Silvicultural point source" means any discernible, confined and discrete conveyance related to rock crushing, gravel washing, log sorting, or log storage facilities which are operated in connection with silvicultural activities and from which pollutants are discharged into waters of the United States. The term does not include non-point source silvicultural activities such as nursery operations, site preparation, reforestation and subsequent cultural treatment, thinning, prescribed burning, pest and fire control, harvesting operations, surface drainage, or road construction and maintenance from which there is natural runoff. However, some of these activities (such as stream crossing for roads) may involve point source discharges of dredged or fill material which may require a CWA section 404 permit (See 33 CFR 209.120 and part 233).

"Site" means the land or water area upon which a source and its water pollution control facilities are physically located, including, but not limited to, adjacent land used for utility systems, repair, storage, shipping or processing areas, or other areas incidental to the industrial, manufacturing, or water pollution treatment processes.

"Site specific allocation" means a wasteload allocation for a specific pollutant to an existing or future point source based on site specific considerations rather than from a total maximum daily load (TMDL).

"SIU pretreatment works" means any treatment works serving exclusively a SIU facility and treating the facility's industrial process wastewater, or a combination of its process and domestic wastewater, prior to the discharge thereof into a domestic treatment works.

"Six hour composite sample" means a combination of individual aliquots obtained at a minimum frequency of one aliquot at 30-minute intervals over a six-hour period.

“Sludge” means the solid residue and associated liquid resulting from the physical, chemical or biological treatment of domestic or industrial wastewaters.

“Slug discharge” means any discharge of a non-routine, episodic nature, including, but not limited to, an accidental spill or a non-customary batch discharge.

“Slurry tank” means a stationary, above or below ground tank, usually made of steel or preformed concrete, designed to hold liquid residuals. These tanks are generally uncovered and conventionally used for storage of manures.

“Small business exemption” means an exemption from submitting specific quantitative data for any business that qualifies as a small business as specified in N.J.A.C. 7:14A-4.3(c).

“Small minor facility” means any facility which discharges to surface water and meets one of the following descriptions:

1. Facilities receiving domestic wastewater with an effluent design flow or effluent permitted flow less than 0.5 MGD with no significant industrial or commercial component;
2. Elementary schools and churches with no off-site contributors;
3. Commercial dischargers, high schools, and technical schools with an effluent design flow or effluent permitted flow less than 0.1 MGD; or
4. Industrial facilities that meet the definition of a small business at N.J.A.C. 7:14A-4.3(c) and discharges less than 10,000 gallons per day, conditional upon approval by the Department.

“Small municipal separate storm sewer system” or “small MS4” means all municipal separate storm sewers (other than “large” or “medium” municipal separate storm sewer systems as defined in this section) that are:

1. Owned or operated by municipalities described under N.J.A.C. 7:14A-25.1(b);
2. Owned or operated by county, State, interstate, or Federal agencies, and located at public complexes as described under N.J.A.C. 7:14A-25.2(a)2;
3. Owned or operated by county, State, interstate, or Federal agencies, and located at highways and other thoroughfares as described under N.J.A.C. 7:14A-25.2(a)3; or
4. Owned or operated by county, State, interstate, Federal, or other agencies, and receive special designation under N.J.A.C. 7:14A-25.2(a)4.

“Soil erosion and sediment control plan” means a scheme which indicates land treatment measures, including a schedule of the timing for their installation, to minimize soil erosion and sediment in accordance with the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq.

“Sole or principal source aquifer” means an aquifer which has been designated by the Administrator pursuant to Section 1424 (a) or (e) of the SDWA.

“Solids/floatables” means any wastes or debris, floating, suspended, or otherwise contained in wastewater capable of being discharged to waters of the State.

“Solid waste” means a solid waste as defined in N.J.A.C. 7:26-1.6.

“Solid waste facility” means a facility as defined at N.J.A.C. 7:26-1.4.

“Source” means any facility or activity, from which there is or may be a discharge of pollutants.

“Spray irrigation” means a system for land application of pollutants, over maintained vegetated ground surfaces using sprinkler heads or nozzles as a method of application.

“Standards for residual use or disposal” means the standards at N.J.A.C. 7:14A-20, 7:26, 7:27 and 40 CFR Parts 257, 258 and 503 which govern minimum requirements for residual quality, management practices, and monitoring and reporting applicable to residual or the use or disposal of residual by any person. These standards may include, but are not limited to, standards for sewage sludge use or disposal.

“Standards for sewage sludge use or disposal” means the standards at N.J.A.C. 7:14A-20, 7:26, 7:27 and 40 CFR Part 258 and 503 which govern minimum requirements for sewage sludge quality, management practices, and monitoring and reporting applicable to sewage sludge or the use or disposal of sewage sludge by any person.

“State” means the State of New Jersey.

“State Act” means the New Jersey “Water Pollution Control Act,” N.J.S.A. 58:10A-1 et seq., as amended.

“State/USEPA Agreement” means an agreement between the Regional Administrator and the State which integrates and coordinates USEPA and State activities, responsibilities and programs under the Federal Act, RCRA, and SDWA.

“Statewide sludge management plan” (“SSMP”) means the most recent version of the document which has been adopted by the Department under the authority of N.J.S.A. 13:1E-46, as the component of the State Solid Waste Management Plan and the Statewide Water Quality Management Plan that establishes the objectives, criteria, and standards for the management of sewage sludge and domestic septage in New Jersey. The SSMP includes district and directed generator sludge management plans approved by the Department.

“Storage of residual” means the containment or placement of residual on land on which the residual remains for six months or less. The storage of residual does not include the treatment of residual. This definition includes the storage of sewage sludge.

“Storage pad” means a large, gently sloping surface, constructed of an impervious material (usually concrete), surrounded by a curb, with a drainage system for collection of leachate, designed to hold dewatered residuals.

“Stormwater” means water resulting from precipitation (including rain and snow) that:

1. Runs off the land's surface;
2. Is transmitted to the subsurface; or
3. Is captured by separate storm sewers or other sewerage or drainage facilities, or conveyed by snow removal equipment.

“Stormwater discharge (or stormwater DSW) associated with industrial activity” means:

1. A discharge to surface water, from a point source or a nonpoint source, of stormwater that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NJPDES program under N.J.A.C. 7:14A-2.5. For the categories of industries identified in this paragraph, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined in 40 CFR part 401); sites used for the storage and maintenance of material handling equipment; sites used for treatment, storage, or disposal of by-product or waste product; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. The term also excludes discharges that qualify for “Permanent No Exposure” exclusion under N.J.A.C. 7:14A-24.6. Industrial facilities include industrial facilities that are Federally, State, or municipally owned or operated that meet the description of the facilities listed in subparagraphs 1i through 1xi below. The following categories of facilities are considered to be engaging in “industrial activity” for purposes of this paragraph:

- i. Facilities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR subchapter N (except facilities with toxic pollutant effluent standards which are exempted under subparagraph 1xi below);

- ii. Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373.

- iii. Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11(1) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operating entity; inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);

- iv. Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under subtitle C of RCRA;

- v. Landfills, land application sites, and open dumps that receive or have received any industrial wastes (waste that is received from any of the facilities described under this paragraph) including those that are subject to regulation under subtitle D of RCRA;

vi. Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

vii. Steam electric power generating facilities, including coal handling sites;

viii. Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under subparagraphs 1i through 1vii above or subparagraphs 1ix through 1xi below are associated with industrial activity;

ix. Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 MGD or more, or required to have an approved pretreatment program under 40 CFR part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with section 405 of the Federal Act;

x. Construction activity including clearing, grading and excavation, except operations that result in the disturbance of less than five acres of total land area. Construction activity also includes the disturbance of less than five acres of total land area that is a part of a larger common plan of development or sale if the larger common plan will ultimately disturb five acres or more. For a facility (other than an airport, powerplant, or uncontrolled sanitary landfill) that is owned or operated by a municipality with a population of less than 100,000, this subparagraph does not include construction activity that commenced prior to March 3, 2004, unless such activity required, but did not have, certification or approval issued under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., prior to March 3, 2004; and

xi. Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-25; and

2. Any discharge to surface waters of stormwater that does not meet paragraph 1 above, but that the Department classifies as a "stormwater discharge associated with industrial activity" at the request of the permittee, applicant, or prospective applicant for that discharge. Such requests may be withdrawn at any time before or after such classification.

"Stormwater discharge (or stormwater DSW) associated with small construction activity" means the discharge to surface water, from a point source or a nonpoint source, of stormwater from:

1. Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include:

i. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility; or

ii. Construction activity that commenced prior to March 3, 2004, unless such activity required, but did not have, certification or approval issued under the Soil Erosion and Sediment Control Act, N.J.S.A. 4:24-39 et seq., prior to March 3, 2004; and

2. Any other construction activity designated by the Department or the USEPA Regional Administrator, based on the potential for contribution to a violation of a surface water quality standard, or for significant contribution of pollutants to waters of the State.

"Stratum" means a single sedimentary bed or layer, regardless of thickness, that consists of generally homogeneous rock material.

"Stream temperature" means the temperature of a stream outside of a designated heat dissipation area.

"Subsidence" means the lowering of the natural land surface in response to any of the following: earth movements; lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in solids; or added load on the land surface.

"Surface casing" means the first string of well casing to be installed in the well.

"Surface disposal site" means an area of land where sewage sludge is placed or was left in place for final disposal. For the purposes of this chapter, "place sewage sludge" or "sewage sludge placed" shall refer to the surface disposal of sewage sludge. This definition does not include an area of land used for the land application of residual.

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may include a liner), which is designed to hold an accumulation of liquid or solid wastes or wastes containing free liquids, and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds, and lagoons.

"Surface water" means water at or above the land's surface which is neither ground water nor contained within the unsaturated zone, including, but not limited to, the ocean and its tributaries, all springs, streams, rivers, lakes, ponds, wetlands, and artificial waterbodies.

"Surface water classifications" means names assigned by the Department in N.J.A.C. 7:9B to waters having the same designated uses and water quality criteria (for example, FW1, PL, FW2-NT, SE1, SC, Zone 1C).

"Surface Water Quality Standards" means the rules at N.J.A.C. 7:9B which set forth, for the surface waters of the State, designated uses, use classifications, and water quality criteria, and the Department's policies concerning these uses, classifications and criteria.

"Surrogate parameter" means a parameter which is used as an indicator of the pollutant concentration for one or more other parameters.

"Suspended Solids" see "total suspended solids".

"Suspension of a permit" means the temporary revocation of a permit for a specified period of time during the five year permit cycle.

"Synoptic well data" means a set of ground water related measurements sufficiently simultaneous so that the piezometric surface and ground water flow direction can be inferred accurately, and important fluctuations will not affect interpretation.

"Thermal alterations" means the increase or decrease in the temperature of surface waters, above or below the natural temperature, that may be caused by the activities of man.

"Thermal discharge" means the component of any discharge which is comprised of heat, and which shall be limited in accordance with Sections 301, 306, 316 of the Federal Act, Section 6 of the State Act.

"Thermocline" means the plane of maximum rate of change in temperature with respect to depth.

"30 day average" or "monthly average value" means the sum of all daily discharges measured during a calendar month, divided by the number of daily discharges measured during that month. Results are commonly expressed in loading (kg/day) and/or concentration (mg/L).

"Tidal waters" means fresh or saline water under tidal influence, up to the head of tide.

"Time proportional composite" means a single sample which receives equal aliquots at equal time intervals.

"Total dissolved solids" or "TDS" means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR Part 136.

"Total Kjeldahl nitrogen" or "TKN" means the summation of the organic nitrogen containing compounds present in effluent or ambient waters which is measured by the total Kjeldahl nitrogen analytical methodology in 40 CFR Part 136, Method 351.

"Total maximum daily load" or "TMDL" means a total maximum daily load formally established pursuant to Section 7 of the Water Quality Planning Act (N.J.S.A. 58:11A-7) and Section 303(d) of the Clean Water Act, 33 U.S.C. §§ 12512 et seq. A TMDL is the sum of individual wasteload allocations for point sources, load allocations for nonpoint sources of pollution, other sources such as tributaries or adjacent segments, and allocations to a reserve or margin of safety for an individual pollutant.

"Total recoverable metal" means the concentration of metal in an unfiltered sample following treatment with hot dilute mineral acid (as defined in Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1979).

"Total suspended solids" or "TSS" means the total nonfilterable residue as determined by analytical procedures set forth in the Manual of Methods for Chemical Analysis of Water and Wastes (USEPA Office of Technology Transfer, Washington, D.C. March 1983).

"Total suspended solids concentrations achievable with waste stabilization ponds" means a TSS value, determined by the Department subject to USEPA approval, which is equal to the effluent concentration achieved 90 percent of the time within the State or appropriate contiguous geographical area by waste stabilization ponds that are achieving the monthly average values for BOD₅ specified in N.J.A.C. 7:14A-12.

"Toxicity test" see "bioassay".

"Toxic pollutant" or "toxic substance" means any pollutant identified pursuant to the Federal Act, or any pollutant or combination of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly or indirectly by ingestion through food chains, may, on the basis of information available to the Department, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformation, in such organisms or their offspring. Toxic pollutants shall include but not be limited to those pollutants identified pursuant to Section 307 of the Federal Act or Section 4 of the State Act, or in the case of "sludge use or disposal practices," any pollutant identified pursuant to Section 405(d) of the Federal Act.

"Trade secret" means the whole or any portion or phase of any scientific, technical or otherwise proprietary information, design, process, procedure, formula, or improvement which is used in one's business and is secret and of value. A trade secret shall be presumed to be secret when the owner takes measures to prevent it from becoming available to persons other than those selected by the owner to have access thereto for limited purposes. A trade secret shall not apply to effluent data as provided in Section 9(c) of the State Act and as defined in this section.

"Treatment of hazardous waste" means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes or so as to recover energy or material resources from the waste, or so as to render such waste nonhazardous, or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage, or reduce in volume.

"Treatment of residual" means the preparation of a residual for final use or disposal. Treatment of residual includes, but is not limited to, thickening, stabilization, and dewatering of the residual. Treatment of residual does not include storage of the residual. This definition includes the treatment of sewage sludge.

"Treatment works" means any device or system whether public or private, used in the storage, treatment, recycling, or reclamation of municipal or industrial waste of a liquid nature including intercepting sewers, outfall sewers, sewage collection systems, cooling towers and ponds, pumping, power and other equipment and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any other works including sites for the treatment process or for ultimate disposal of residues resulting from such treatment. Additionally, "treatment works" means any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of pollutants, including stormwater runoff, or industrial waste in combined or separate stormwater and sanitary sewer systems.

"Treatment works treating domestic sewage" means a DTW or any other sewage sludge or wastewater treatment devices or systems, regardless of ownership (including Federal facilities) used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. The Regional Administrator or Commissioner may designate any person subject to the standards for sewage sludge use or disposal in 40 CFR Part 503 or N.J.A.C. 7:14A-20, as a "treatment works treating domestic sewage" through issuance of a permit where it is found that there is a potential for adverse effects on public health and the environment from sludge quality or sludge handling, or residual use or disposal practices, or where there is a finding that such designation is necessary to ensure that such person is in compliance with 40 CFR Part 503 or N.J.A.C. 7:14A-20.

"Treatment works approval" means an approval issued pursuant to N.J.S.A. 58:10A-6 and N.J.A.C. 7:14A-22, or pursuant to former N.J.S.A. 58:12-3 (Repealed by P.L. 1977, c. 74, Section 14 effective July 24, 1977).

"Trout maintenance waters" means waters designated in N.J.A.C. 7:9B for the support of trout throughout the year.

"Trout production waters" means waters designated in N.J.A.C. 7:9B for use by trout for spawning or nursery purposes during their first summer.

"24-hour composite sample" means a combination of individual aliquots obtained at a minimum frequency of one aliquot at hourly intervals over a 24-hour period.

"201 Facilities Plans" means plans for wastewater treatment facilities adopted pursuant to Section 201 of the Federal Act.

"Type I error" means an error that occurs when a true null hypothesis is rejected erroneously. In the monitoring context a Type I error occurs when a test incorrectly indicates contamination or an increase in contamination at a regulated unit.

"UIC permit" means a NJPDES-DGW permit issued for underground injection control.

"Ultimate sludge management alternative" means the final management of sludge at a facility or operation such that no additional permit or approval actions are required for further processing or movement.

"Uncontrolled sanitary landfill" means a landfill or open dump, whether in operation or closed, that does not meet the requirements for runoff or runoff controls established pursuant to subtitle D of RCRA.

"Underground injection" means a well injection.

"Underground source of drinking water" or "USDW" means an aquifer or its portion which supplies any public water system; or

1. Which contains a sufficient quantity of ground water to supply a public water system; and
 - i. Currently supplies drinking water for human consumption; or
 - ii. Contains fewer than 10,000 mg/l total dissolved solids; and
2. Which is not Class III ground water, in accordance with N.J.A.C. 7:9-6.5(f).

“Unsaturated zone” means the subsurface volume between the land’s surface and the top of the saturated zone (water table), where moisture does not fill all the pore spaces in the formation or soil.

“Unstable area” means land subject to natural or human-induced forces that may damage the structural components of a surface disposal site. This includes, but is not limited to, land on which the soils are subject to mass movement.

“Uppermost aquifer” means the geologic formation nearest the natural ground surface that is an aquifer, as well as, lower aquifers that are hydraulically interconnected with this aquifer within the facility’s property boundary.

“USEPA approved model” means water quality models which have been accepted by the USEPA Center for Exposure Assessment Modeling in Athens, Georgia, and for which the Center provides technical support.

“USEPA Technical Support Document” means the USEPA Technical Support Document for Water Quality Based Toxics Control, (EPA/505/2-90-001), dated March 1991, as amended, incorporated herein by reference.

“User” means any person, individual, firm, company, partnership, corporation, association, group or society, mobile source, and includes political subdivisions of this State and any Federal, State or interstate agency discharging to a DTW.

“Variance” means any mechanism or provision under Sections 301 or 316 of the Federal Act or under 40 CFR Part 125, or in the applicable “effluent limitations guidelines” which allows modification to or waiver of the generally applicable effluent limitation requirements or time deadlines of the Federal Act. This includes provisions which allow the establishment of alternative limitations based on fundamentally different factors or on Section 301(c), 301(g), 301(h), 301(i), or 316(a) of the Federal Act.

“Vector attraction” means the characteristic of a residual that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

“Warm water aquatic animals” means and includes, but is not limited to, the Ameiuride (catfish), Centrarchidae (sunfish) and Cyprinidae (minnow) families of fish.

“Wasteload” means the amount of chemical, physical, radiological, or biological matter contained within a waste discharge.

“Wasteload allocation” means the portion of a receiving water’s total maximum daily load for a specific pollutant that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation.

“Waste management unit boundary” means a vertical surface located at the hydraulically downgradient limit of the MSWLF unit. This vertical surface extends down into the uppermost aquifer.

“Water quality based effluent limitations” means effluent limitations established so that the quality of the waters receiving a discharge will meet the Surface Water Quality Standards of N.J.A.C. 7:9B, after the introduction of the effluent.

“Water quality criteria” means a designated concentration of a constituent that, when not exceeded, will protect an organism, an organismic community or a prescribed water use or quality.

“Water quality management plans” or “WQMPs” means the plans prepared pursuant to Sections 208 and 303 of the Federal Act and the Water Quality Planning Act, N.J.S.A. 58:11A-1 et seq., including the Statewide, areawide, and county WQM plans.

“Water quality standards” means the physical, chemical, biological and esthetic characteristics of a water body as described by State water quality criteria, N.J.A.C. 7:9B, or the water quality which would result from existing discharges under design conditions, whichever is more stringent as determined by the Department.

“Waters of the State” means the ocean and its estuaries, all springs, streams and bodies of surface or ground water, whether natural or artificial, within the boundaries of the State of New Jersey or subject to its jurisdiction.

“Weekly” means every seventh day (the same day each week) and a normal operating day, unless otherwise specified in the permit. A normal operating day shall be a period of time reasonably representative of normal operating conditions, on which a representative sample of the discharge may be obtained.

“Weekly monitoring” means monitoring conducted at a minimum of once every seven calendar day period.

“Well” means a bored, drilled or driven shaft, or a dug hole, whose depth is greater than the largest surface dimension.

“Well injection” means the subsurface emplacement of fluids through an injection well.

“Well log” means a log obtained from a well showing such information as relative location and depth of soils horizons and geologic units indicating textural and other petrologic characteristics. Well logs may also show geophysical properties such as resistivity, radioactivity, spontaneous potential and acoustic velocity as in function of depth.

“Well monitoring” means the measurement by on-site instruments or laboratory methods of the quality of water in a well.

“Well plug” means a watertight and gastight seal installed in a borehole or well to prevent movement of fluids.

“Well record” means a concise statement of the available data regarding a well, such as a scout ticket; a full history or day-by-day account of a well, from the day the well was surveyed to the day production ceased.

“Well stimulation” means several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected thus making it possible for wastewater to move more readily into the formation, and includes surging, jetting, blasting, acidizing, or hydraulic fracturing.

“Wetlands” means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions commonly known as hydrophytic vegetation. The Department shall evaluate the parameters of hydrology, soils, and vegetation to determine the presence and extent of wetlands.

“Whole effluent toxicity” or “WET” means the aggregate toxic effect of an effluent measured by a toxicity test.

“Working hours” means the established core operation hours of the Department, including but not limited to 8:00 A.M. through 5:00 P.M., Monday through Friday.

“Written statement of consent” means a Departmental form or a resolution by a governmental entity (as specified by the Department for the action requested) signed by an authorized representative of the governmental entity, which expresses that entity’s acknowledgment of an application submitted to the Department for approval.

“Zone” means the general surface water classification applied to the mainstem Delaware River and Delaware Bay.

“Zone of saturation” means saturated zone.

Administrative correction.
See: 29 N.J.R. 3822(a).

In “Hazardous waste”, amended N.J.A.C. references; Changed “Level of pollutant concentration actually achieved” to “Level of pollutant control actually achieved”, and added reference to nonconventional pollutants; in “Medium municipal separate storm sewer system”, in 1, inserted “(As of May 5, 1997, only Elizabeth, Jersey City, and Paterson are listed)”, and in 2, inserted “(As of May 5, 1997, no New Jersey counties are listed)”; in “Operating entity”, deleted reference to “operator error”; in “Significant indirect user”, amended N.J.A.C. references; in “Surface impoundment”, changed “wastes containing free liquids” to “wastes containing free liquids”; and deleted “Total suspended solids concentrations achievable with waste stabilization ponds”.

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).

Added “Cesspool”, “Illicit connection”, “Small municipal separate storm sewer system”, “Stormwater discharge (or stormwater DSW) associated with construction activity”; rewrote “Connection”, “Co-permittee”, “Interstate agency”, “Large municipal separate storm sewer system”, “Medium municipal separate storm sewer system”, “Municipality”, “Municipal separate storm sewer”, “Stormwater”, “Stormwater discharge associated with industrial activity”; deleted “Run-off” for purposes of N.J.A.C. 7:14A-10 only, and “Run-on”.

Administrative corrections.

See: 36 N.J.R. 4133(a).

Administrative correction.

See: 37 N.J.R. 1517(a).

Case Notes

Flow monitoring; requirement for surface water discharge permit. Public Interest Research Group of New Jersey v. Yates Industries, Inc., D.N.J.1991, 757 F.Supp. 438, reconsideration denied in part, granted in part 790 F.Supp. 511.

Citation to upset definition; pollutant discharger not entitled to upset defense to permit limit exceedances which occurred prior to inclusion of upset provision in discharge permit; burden of proof of upset on discharger. Student Public Interest Research Group of New Jersey v. P.D. Oil & Chemical Storage, Inc., 627 F.Supp. 1074 (D.N.J. 1986).

Regulation defining “connection” was inapplicable to a regional or local sewerage authority established pursuant to N.J.S.A. 40:14-1 et seq., and had nothing to do with connection fees as therein prescribed. Nestle USA-Beverage Division, Inc. v. Manasquan River Regional Sewerage Authority, 330 N.J.Super. 510, 750 A.2d 157 (N.J.Super.A.D. 2000).

Citation to definitions of thermal, municipal and industrial discharges. Public Service Electric and Gas Co. v. Dept. of Environmental Protection, 101 N.J. 95, 501 A.2d 125 (1985).

Corporation officer held personally responsible for administrative penalty assessment when company violates water pollution law during irregularly scheduled operation. Department of Environmental Protection v. Port Norris Oyster Company, Inc. and Weaton, 97 N.J.A.R.2d (EPE) 12.

Sewage treatment plant properly denied penalty waiver; “upset”. Septemberers on the Hill, Inc. v. DEPE, 94 N.J.A.R.2d (EPE) 165.

Piercing corporate veil not necessary; officers liable as “responsible corporate officials”. Department of Environmental Protection v. Engineered Precision Casting Co., 93 N.J.A.R.2d (EPE) 87.

Evidence was sufficient to establish unlawful discharge of pollutants. Salem Packing Company v. New Jersey Department of Environmental Protection, 92 N.J.A.R.2d (EPE) 270.

SUBCHAPTER 2. GENERAL PROGRAM REQUIREMENTS

7:14A-2.1 Purpose and scope

(a) This chapter establishes the regulatory framework under the authority of N.J.S.A. 58:10A-1 et seq., 58:11A-1 et seq., 58:11-49 et seq., 58:10-23.11 et seq., 58:11-18.10 et seq., 13:1D-1 et seq., 13:1E-1 et seq., 58:4A-5, 58:4A-4.1, 58:12A-1 et seq. 42 U.S.C. §§ 300F et seq., and 33 U.S.C. §§ 1251 et seq., within which the Department regulates the discharge of pollutants to the surface and ground waters of the State.

(b) The intent of these rules is to:

1. Restore, enhance, and maintain the chemical, physical, and biological integrity of the waters of the State;
2. Protect public health and safety;
3. Protect potable water supplies;
4. Safeguard fish and aquatic life and scenic and ecological values;
5. Enhance the domestic, municipal, recreational, industrial, agricultural and other uses of water; and
6. Prevent, control, and abate water pollution.

(c) This chapter sets forth the rules concerning implementation and operation of the New Jersey Pollutant Discharge Elimination System (NJPDES) permit program and the Treatment Works Approval (TWA) program. Each delegated local agency (DLA) shall issue and administer permits in accordance with an approved industrial pretreatment program, and the requirements of N.J.A.C. 7:14A-19 and applicable sections of N.J.A.C. 7:14A-21.

(d) It shall be unlawful for any person to discharge any pollutant except in conformity with a valid NJPDES permit issued by the Department, unless specifically exempted by this chapter.

(e) It shall be unlawful for any person to build, install, modify, or operate any facility for the collection, treatment, or discharge of any pollutant, except in conformance with the TWA requirements contained in N.J.A.C. 7:14A-22 and 23.

Case Notes

Standing to challenge pollutant discharge: no federal limitation period applicable to citizen suit; liability established by polluter's admissions and official reports that effluent limits exceeded. Student Public Interest Research Group of New Jersey v. P.D. Oil & Chemical Storage, Inc., 627 F.Supp. 1074 (D.N.J.1986).

Water pollution violation; discharge of sand-filled wash water into groundwater lagoon without permit. Department of Environmental Protection v. Brick-Wall Corp., 93 N.J.A.R.2d (EPE) 141.

Sewage treatment facility was shown to have discharged pollutants in violation of administrative consent order. Sheffield Hills Sewage Treatment Plant v. Division of Water Resources, 92 N.J.A.R.2d (EPE) 163.

7:14A-2.2 Liberal construction and severability

(a) This chapter shall be liberally construed to permit the Department to effectuate the purposes of the State and Federal Acts.

(b) If any subchapter, section, subsection, provision, clause, or portion of this chapter or the application thereof to any person is adjudged unconstitutional or invalid by a court of competent jurisdiction, such judgment shall be confined in its operation to the subchapter, section, subsection, clause, portion, or application directly involved in the

controversy in which such judgment shall have been rendered and it shall not affect or impair the remainder of this chapter or the application thereof to other persons.

7:14A-2.3 Incorporation by reference

(a) The requirements applicable to the NJPDES program of the Federal Clean Water Act (33 U.S.C. §§ 1251 et seq.), the Federal Safe Drinking Water Act (42 U.S.C. §§ 300F et seq.), the State Act, and all Federal regulations cited in this chapter, including, but not limited to, 40 CFR Parts 110, 122, 123, 124, 125, 129, 133, 136, 144, 258, 264, 403, and National Pretreatment Standards in 40 CFR chapter I, subchapter N, and including all amendments and supplements thereto, are incorporated into this chapter by reference unless the context clearly indicates otherwise. A copy of the Federal Act, the State Act, or any Federal regulation cited in this chapter may be obtained at the State Library.

(b) The Delaware River Basin Commission Water Quality Regulations, including all amendments and supplements thereto, and the Interstate Environmental Commission Water Quality Regulations, including, all amendments and supplements thereto, are incorporated into this chapter by reference unless the context clearly indicates otherwise.

(c) Wherever the requirements of this chapter are more stringent than existing requirements of a Federal regulation, the requirements of this chapter shall apply.

(d) For provisions of this chapter that incorporate Federal statutory requirements, amendments to the Federal statutes after the promulgation of these rules supersede these rules, as of the effective date of such amended Federal statute, to the extent that such Federal statutory amendments are not inconsistent with State statutory requirements. For provisions of this chapter that incorporate State statutory requirements, amendments to the State statute after the promulgation of these rules supersede these rules, as of the effective date of such amended State statute. The Department shall, subsequently, amend this chapter as necessary in accordance with the State Administrative Procedure Act.

Administrative change.
See: 34 N.J.R. 1902(a).

7:14A-2.4 Activities that require a NJPDES permit

(a) The NJPDES permitting program shall regulate and issue permits for the discharge of pollutants to surface and ground waters of the State, pursuant to the State and Federal Acts, except for those activities specifically prohibited or exempted pursuant to N.J.A.C. 7:14A-2.4(d) and 2.5, respectively.

(b) The Department shall, at a minimum, issue NJPDES permits for the following activities:

1. Discharge of pollutants to surface and ground waters;

Amended by R.2004 d.47, effective February 2, 2004.
See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).
Rewrote (b)11 and (c).

7:14A-2.5 Exemptions

(a) The following activities are exempt from the requirements to obtain a NJPDES permit from the Department:

1. Any direct discharge of sewage from vessels, effluent from properly functioning marine engines, laundry, shower, and galley sink wastes, or any other discharge incidental to the normal operation of a vessel. This exemption does not apply to the following:
 - i. Rubbish, trash, garbage, or other such materials discharged overboard; or
 - ii. Other discharges when the vessel is operating in a capacity other than as a means of transportation such as when used as an energy or mining facility, a storage facility or a seafood processing facility, a residence, or when secured to a storage facility or a seafood processing facility, or when secured to the bed of the ocean, contiguous zone, or waters of the United States for the purpose of mineral or oil exploration or development;
2. Discharges of dredged or fill material into waters of the United States which are regulated under Section 404 of the Federal Act;
3. Any discharge in compliance with the instructions of an On-Scene Coordinator pursuant to 40 CFR 300 (The National Oil and Hazardous Substances Pollution Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances), and the State Spill Compensation and Control Act, N.J.S.A. 58:10-23.11;
4. Any introduction of pollutants from nonpoint source agricultural and silvicultural activities, including runoff from orchards, cultivated crops, pastures, range lands, and forest lands. This paragraph does not exempt the point source discharges from concentrated animal feeding operations as defined at N.J.A.C. 7:14A-1.2, from concentrated aquatic animal production facilities as defined at N.J.A.C. 7:14A-1.2, from silvicultural point sources as defined at N.J.A.C. 7:14A-1.2, or to aquaculture projects as defined at N.J.A.C. 7:14A-1.2;
5. Return flows from irrigated agriculture;
6. Indirect users which do not meet the SIU definition in N.J.A.C. 7:14A-1.2;
7. Indirect users which meet the SIU definition in N.J.A.C. 7:14A-1.2 and discharge to a delegated local agency. IPP permits issued by delegated local agencies to indirect users under this chapter are NJPDES permits. An exemption under this section does not limit the authority of a delegated local agency to require a IPP permit;

2. A discharge from an indirect user;
3. The land application of municipal wastewaters and/or industrial wastewaters, including, but not limited to, spray irrigation, overland flow, and infiltration-percolation lagoons;
4. The discharge from facilities under the jurisdiction of the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.;
5. The storage of any liquid or solid pollutant, in a manner designed to keep it from entering the waters of the State;
6. The discharge of pollutants into wells;
7. Discharges from concentrated animal feeding operations as specified in N.J.A.C. 7:14A-2.13;
8. Discharges from concentrated aquatic animal production facilities as specified in N.J.A.C. 7:14A-2.14;
9. Discharges from aquaculture projects;
10. Discharges from silvicultural point sources;
11. Discharges of stormwater to surface water and groundwater, including discharges through storm sewers, as set forth in N.J.A.C. 7:14A-24 and 25;
12. Discharges from site remediation projects;
13. The treatment, storage or disposal of hazardous waste which is not regulated by the Hazardous Waste Management Regulations, N.J.A.C. 7:26; and
14. Those treatment works treating domestic sewage, or residual use or disposal practices, pursuant to Section 405(d) of the Federal Act and Sections 4 and 6 of the State Act, including, but not limited to, the land application of residual.

(c) The Department shall determine, on a case-by-case basis, that facilities which are otherwise eligible for general permits and which do not generally require individual permits may be required to obtain an individual permit because of their contributions to water pollution. Whenever the Department determines that an individual permit is required under this section, the Department shall notify the discharger in writing of the reasons for such a determination and shall include an application form with such notice. The discharger shall apply under N.J.A.C. 7:14A-4 for a permit within 60 days of receipt of such notice, except for a discharger of stormwater under N.J.A.C. 7:14A-24.2, who shall apply within 180 days unless the Department approves a later date. In such a case, comment regarding the appropriateness of the initial determination to require an individual permit may be submitted during the public comment period under N.J.A.C. 7:14A-15.11 and in any subsequent hearing.

(d) The Department shall not issue a permit when prohibited by 40 CFR 122.4 or N.J.S.A. 58:10A-6(e).

SUBCHAPTER 7. REQUIREMENTS FOR DISCHARGES TO GROUND WATER (DGW)

7:14A-7.1 Purpose

This subchapter establishes NJPDES permit requirements for persons who discharge pollutants to ground waters of the State. The purpose of the NJPDES discharge to ground water permit is to restore, enhance, and maintain the ground water quality of the State, in accordance with N.J.S.A. 58:10A-1 et seq. and the Ground Water Quality Standards (GWQS) in N.J.A.C. 7:9-6.

7:14A-7.2 Requirement to discharge in compliance with a valid NJPDES permit

(a) Persons responsible for discharges to ground water shall comply with all applicable NJPDES regulations.

(b) Except as otherwise provided in N.J.A.C. 7:14A-7.4 and 7.5, no person shall discharge to ground water prior to obtaining a discharge to ground water permit.

(c) All discharges to ground water permits existing on May 5, 1997 shall continue in full force and effect until renewed or terminated in accordance with the provisions of this chapter.

7:14A-7.3 Scope and applicability

(a) Persons responsible for discharges to ground water shall comply with all the requirements of this subchapter, except those persons listed under (c), (d), and (e) below, and in N.J.A.C. 7:14A-7.4.

(b) Persons responsible for the activities, pollution sources, or regulated units listed at (b)1 through 7 below shall comply with the requirements of this subchapter. Persons responsible for discharges not listed below are not exempt from the requirement to obtain a discharge to ground water permit. The list is intended only to be illustrative and is not exhaustive:

1. Surface impoundments;
2. Spray irrigation;
3. Overland flow;
4. Infiltration/percolation lagoons;
5. Residuals surface impoundments;
6. Injection wells; and
7. Land disposal of dredge spoils.

(c) Persons responsible for discharges to ground water from sanitary landfills as provided for in N.J.A.C. 7:26 shall conduct ground water monitoring in accordance with N.J.A.C. 7:14A-9.

(d) Persons responsible for discharges to ground water from hazardous waste facilities as defined in N.J.A.C. 7:26G,

shall conduct ground water monitoring in accordance with N.J.A.C. 7:14A-10.

(e) Persons responsible for discharges to ground water associated with land application of residual shall comply with N.J.A.C. 7:14A-20.

Administrative correction.
See: 29 N.J.R. 3822(a).
Amended N.J.A.C. references.

7:14A-7.4 Exemptions

(a) Persons responsible for the following discharges are exempt from the requirement to obtain a discharge to groundwater permit:

1. Discharges from single family residential subsurface sewage disposal systems that are designed, constructed, installed and operated in compliance with the Realty Improvement Sewerage and Facilities Act, N.J.S.A. 58:11-23 et seq., and Standards for Individual Subsurface Sewage Disposal Systems, N.J.A.C. 7:9A;
2. Return flows from irrigated agriculture;
3. Discharges that occurred prior to May 5, 1997, except existing permitted discharges identified in N.J.A.C. 7:14A-7.2(c);
4. Any discharge not to exceed 60 calendar days and in compliance with the instructions of a Department on-scene coordinator or remedial project manager pursuant to 40 CFR 300 (the National Oil and Hazardous Substances Contingency Plan) or 33 CFR 153.10(e) (Pollution by Oil and Hazardous Substances), and the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11; and
5. The following stormwater discharges, if such discharges are not through underground injection regulated under N.J.A.C. 7:14A-8, and do not require a permit under N.J.A.C. 7:14A-24.2(a)9:
 - i. Stormwater discharges from municipal separate storm sewers that are not identified under N.J.A.C. 7:14A-25.2(a) or (b);
 - ii. Stormwater discharges from residential areas (including residential streets, parking lots, easements, and open space), or from commercial areas (other than areas of high pollutant loading), unless N.J.A.C. 7:14A-25.2(a) or (b) requires the operating entity to apply for a NJPDES permit for the discharge. For purposes of this subparagraph and N.J.A.C. 7:14A-8.5(b)9 and 24.2(c)3, high pollutant loading areas are commercial areas where solvents and/or petroleum products are loaded/unloaded, stored, or applied; commercial areas where pesticides are loaded and/or unloaded or stored; commercial areas where hazardous materials are expected to be present in greater than "reportable quantities" as defined by the USEPA at 40 C.F.R. 302.4; commercial areas where recharge would be inconsistent with a Department approved remedial

action work plan or landfill closure plan; and commercial areas where the risk for spills of toxic material is high, such as gas stations and vehicle maintenance facilities; and

iii. Stormwater discharges from animal feeding operations that do not require NJPDES permits under N.J.A.C. 7:14A-2.5(d) or 2.13.

Amended by R.2004 d.47, effective February 2, 2004.
See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).
In (a), added 5.

7:14A-7.5 Authorization of discharges to ground water by permit-by-rule

(a) Any person responsible for any of the following discharges to ground water is deemed to have a permit-by-rule:

1. Discharges to ground water from underground injection activities that are eligible for a permit-by-rule under N.J.A.C. 7:14A-8.5;

2. Discharges to ground water from activities associated with the flushing or cleaning of potable water mains and fire water systems, including hydrants and sprinklers;

3. Discharges to ground water from activities associated with the development of potable water wells;

4. Discharges to ground water from activities associated with the installation, development and sampling of monitoring wells in accordance with a NJPDES permit or, for activities not included in a NJPDES permit, in accordance with the Technical Requirements for Site Remediation, including, but not limited to, the requirements of N.J.A.C. 7:26E-3.7(c)2 and 6.4(d)3; and

5. Discharges to ground water from wells, other than discharges that occur during the course of a remediation pursuant to (b)3 below, that occur during aquifer tests for the purpose of obtaining hydrogeologic data, provided that such discharges do not exceed 30 calendar days in duration.

(b) Any person responsible for the discharges to ground water listed in (b)3i through vii below is deemed to have a permit-by-rule if the discharge occurs when:

1. A contaminated site, as defined in N.J.A.C. 7:26C-1.3, is being remediated pursuant to the rules at N.J.A.C. 7:14B implementing the Underground Storage of Hazardous Substances Act (N.J.S.A. 13:1K-6 et seq.), the requirements of the Industrial Site Recovery Act (N.J.S.A. 13:1K-6 et seq.), the requirements of the Spill Compensation and Control Act (N.J.S.A. 58:10-23.11), or the Procedures for Department Oversight of the Remediation of Contaminated Sites at N.J.A.C. 7:26C; and

2. The person is in receipt of written approval of the discharge from the Department;

3. The following ground water discharges are authorized by a permit-by-rule under this subsection:

i. Discharges to ground water, not to exceed 180 calendar days, from pilot treatment plants to obtain engineering design data;

ii. Discharges to ground water related to biotreatability studies where the discharge will not exceed 180 calendar days;

iii. Discharges to ground water, not to exceed 30 calendar days, from wells to test aquifers for the purpose of obtaining engineering and hydrogeologic design data;

iv. Discharges to ground water, not to exceed 180 calendar days, from any other facility or equipment associated with engineering studies, remedial action selection, or design studies and associated monitoring;

v. Discharges to ground water to remediate contamination from discharges of heating oil as defined at N.J.A.C. 7:14A-1.2, at a residential building of four units or less;

vi. Discharges to ground water, not to exceed 180 calendar days, related to dewatering at a contaminated site or regulated underground storage tank facility; and

vii. Discharges to ground water, other than those listed in (b)3i through vi above, that occur during the course of a site remediation that is being conducted in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E, including the requirements of N.J.A.C. 7:26E-6.1 and 6.3(c).

(c) The Department shall invalidate any permit-by-rule under this section and require any person responsible for the discharge for which the permit-by-rule had been approved to apply for and obtain an individual discharge to ground water permit if:

1. The discharge is likely to contravene the ground water quality standards at N.J.A.C. 7:9-6;

2. The discharge may result in violation of the Surface Water Quality Standards at N.J.A.C. 7:9B.

Amended by R.2005 d.222, effective July 5, 2005.
See: 37 N.J.R. 405(a), 37 N.J.R. 2499(a).

In (a), rewrote 4 and 5; rewrote (b).

7:14A-7.6 Ground Water Protection Program (GWPP)

(a) Each discharge to ground water permit, except those identified in N.J.A.C. 7:14A-7.3(c), (d) and (e), and those permitted by rule pursuant to N.J.A.C. 7:14A-7.5, shall include an approved Ground Water Protection Program to ensure that the discharge does not contravene the ground water quality standards at N.J.A.C. 7:9-6 and meets the monitoring requirements of this section and N.J.A.C. 7:14A-7.7.

(b) Unless an alternate program is approved in advance as indicated in (f) below, each Ground Water Protection Program shall include the following components:

1. A monitoring well system, consisting of monitoring wells located in each aquifer that may be impacted by the discharge. Unless the permittee demonstrates otherwise to the satisfaction of the Department, the monitoring well system shall consist of a minimum of one hydraulically upgradient well, and at least three hydraulically downgradient wells. The permittee shall demonstrate the adequacy of the monitoring well system by:

i. Submission of results of a physical or mathematical ground water flow and/or contaminant transport model demonstrating that the monitoring well system is capable of intercepting contaminant plumes emanating from each pollutant source;

ii. Submission of results of geophysical methods of analysis such as resistivity/conductivity methods that confirm wells are placed such that they are capable of intercepting contaminant plumes emanating from each pollution source; or

iii. Submission of results of an alternative method of adequacy testing, approved by the Department in writing;

2. Effluent quality monitoring;

3. A schedule of mechanical and structural testing to determine that the berms, dikes, liners, and wells, and any other engineered devices used as part of a treatment works will function as designed;

4. A list of ground water contaminants for which to monitor, analyze, and report, including the contaminants identified during the pollutant characterization performed in accordance with N.J.A.C. 7:14A-7.9(d)2; and

5. A schedule, including procedures and techniques for:

- i. Sample collection;
- ii. Sample preservation and shipment;
- iii. Analytical procedures; and
- iv. Chain of custody control.

(c) In addition to the requirements of (b) above, a Ground Water Protection Program shall contain additional treatment works, materials management, best management plans, discharge sampling, flow limitations, effluent limitations, monitoring wells, lysimeters, piezometers, alarms, hydraulic control devices and inspections as required to prevent contravention of the ground water quality standards in N.J.A.C. 7:9-6.

(d) In each Ground Water Protection Program, the Department shall require one or more of the following monitoring programs:

1. A leak detection monitoring program, capable of detecting all discharges from any pollution source not designed to discharge pollutants but from which a discharge could occur as a result of a leak or other structural

failure. The leak detection monitoring program shall include:

i. A monitoring well system that includes the components described at (b)1 above or leak detection devices such as piezometers, alarms, electrical leak detection or leak location systems, or leachate collection systems; and

ii. A statistical analysis of the monitoring well data collected in accordance with N.J.A.C. 7:14A-7.7, in order to determine whether or not there is statistically significant evidence of a leak from the pollutant source when monitoring is conducted pursuant to (b)1 above.

2. An attenuation monitoring program if any pollution source is known or expected to discharge pollutants. The attenuation monitoring program shall include:

i. The components described at (b) above; and

ii. A statistical analysis of the monitoring well data collected in accordance with N.J.A.C. 7:14A-7.7, in order to determine whether or not there is statistically significant evidence of a contravention of the ground water quality standards in N.J.A.C. 7:9-6.

3. A non-point source monitoring program if there are an indeterminate number of pollution sources, or more than one discharge source. The non-point source monitoring program shall consist of:

i. The components described at (b) above; and

ii. A monitoring approach capable of evaluating whether ground water quality standards are contravened at the property boundary, or at another point of compliance as identified in the permit.

(e) When comparing data from monitoring wells, the data collected shall be subjected to the appropriate statistical analyses as described in N.J.A.C. 7:14A-7.7.

(f) If approved by the Department in writing, a permittee may implement an alternate Ground Water Protection Program that ensures compliance with the ground water quality standards of N.J.A.C. 7:9-6 and that meets the monitoring requirements of this section and N.J.A.C. 7:14A-7.7.

7:14A-7.7 Ground water sampling procedures and statistical analysis requirements

(a) The person responsible for conducting the Ground Water Protection Program established pursuant to N.J.A.C. 7:14A-7.6 shall conduct ground water sampling in accordance with the edition of the Department's Field Sampling Procedures Manual applicable at the time of sampling, an alternate method approved by the Department, or as set forth in the NJPDES-DGW permit.

(b) When statistical data evaluations are specified by the Department to implement the Ground Water Protection Program, the statistical test chosen shall be conducted sepa-

rately for each specified constituent in each well, and one of the following statistical methods shall be used to evaluate ground-water monitoring data for each specified constituent:

1. A parametric analysis of variance (ANOVA) followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's mean and the background water quality mean levels for each constituent;

2. An analysis of variance (ANOVA) based on ranks followed by multiple comparison procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between each compliance well's median and the background water quality median levels for each constituent;

3. A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background water quality data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

4. A control chart approach that gives control limits for each constituent; or

5. Another statistical test method that meets the performance standards of (c) below, and has been approved by the Department in writing.

(c) Any statistical method chosen under this section shall comply with the following performance standards, as appropriate:

1. The statistical method used to evaluate ground-water monitoring data shall be appropriate for the distribution of parameters. If the distribution of the parameters is shown by the permittee to be inappropriate for a normal theory test, then the data must be transformed or a distribution free theory test used. If the distributions for the constituents differ, more than one statistical method may be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background water quality constituent concentrations or a ground-water protection standard, the test shall be done at a type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the type I experiment wise error rate for each testing period shall be no less than 0.05; however, the type I error of no less than 0.01 for individual well comparison shall be maintained. The performance standard does not apply to tolerance intervals, prediction intervals or control charts.

3. If a control chart approach is used to evaluate ground-water monitoring data, the specific type of control chart and its associated parameter values shall be protective of human health and the environment. The parameters shall be determined after considering the number of samples in the background water quality data base, the data distribution, and the range of the concentration values for each constituent of concern.

4. If a tolerance interval or a prediction interval is used to evaluate ground-water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain shall be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background water quality data base, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation level (PQL) as defined in N.J.A.C. 7:9-6 that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(d) When conducting a leak detection monitoring program, the permittee shall determine whether or not there is a statistically significant increase over background water quality values for each parameter or constituent required in the permit.

1. In determining whether a statistically significant increase has occurred, the permittee shall compare the ground water quality of each parameter or constituent at each compliance point monitoring well designated pursuant to the permit to the background water quality value of that constituent, according to the statistical procedures and performance standards specified under this section.

2. Within the period of time specified in the NJPDES discharge to ground water permit, and after completing sampling and analysis, the permittee shall determine whether there has been a statistically significant increase over background water quality at each monitoring well.

(e) When conducting an attenuation monitoring program, the permittee shall determine whether the discharge complies with the ground water constituent standards for the classification area established pursuant to N.J.A.C. 7:9-6.

1. In determining whether the discharge complies with the ground water constituent standards for the classification area, the permittee shall compare the ground water quality of each parameter or constituent at each compliance point monitoring well designated pursuant to the permit to the background water quality value of that constituent, according to the statistical procedures and performance standards specified under this section.

2. Within the period of time specified in the NJPDES discharge to ground water permit, and after completing sampling and analysis, the permittee shall determine whether there has been a statistically significant contravention of the ground water quality standards.

7:14A-7.8 Required response to contravention of ground water quality standards

(a) To address any contravention of the ground water quality standards that occurs while a discharge to ground water permit is in effect, each permit shall specify the

following measures for the permittee to undertake as appropriate:

1. That the permittee shall notify the Department as provided in the permit, including the nature and extent of the contravention, followed by confirmation in writing, by certified mail within a time frame set forth in the permit, after the Department receives information obtained according to N.J.A.C. 7:14A-7.6(b)4;

2. That the permittee shall install additional wells at additional locations to determine the extent of the ground water contamination attributable to the regulated discharge;

3. That the permittee shall provide additional pre-treatment of the discharge to improve its quality by decreasing pollutant concentration;

4. That the permittee shall expand disposal areas onto additional land areas to reduce or minimize the impact of the discharge;

5. That the permittee shall take any other action necessary to comply with the ground water quality standards;

6. That the permittee shall reduce or cease the discharge; and

7. That the permittee shall implement the responses within the time frame required by the permit.

(b) In addition to the requirements of (a) above, any person responsible for a discharge that contravenes the Ground Water Quality Standards as specified in the discharge to ground water permit may be subject to the requirements of N.J.A.C. 7:26C.

7:14A-7.9 General requirements for applications for discharge to groundwater permit

(a) In addition to the information required pursuant to N.J.A.C. 7:14A-4.3, an applicant for a NJPDES Discharge to Groundwater permit shall submit information to the Department as follows:

1. All dischargers shall submit the information required pursuant to (d) below, except as provided in N.J.A.C. 7:14A-25.9(d)1 for certain stormwater discharges, or when, after consultation with the Department during pre-application conferences, it is determined that the information is not necessary to develop permit conditions for the facility.

(b) Submission of information as required under this section shall not exempt the applicant from compliance with any other permit application requirements which apply to the discharge to ground water site, to any treatment system of which the discharge to ground water site is a component, or to any other existing or proposed discharges at the facility.

(c) Pre-application conferences with the Department concerning the information required pursuant to (d) below are recommended.

(d) The following information shall be submitted in the application for the Discharge to Ground Water permit pursuant to (a) above:

1. Project related information as follows:

- i. A description of the facility;
- ii. The nature of the establishment; and
- iii. The total floor area of all structures on site and their maximum occupancy where necessary to determine the daily volume of discharge;

2. Pollutant characteristics as follows:

- i. The origin and daily volume of discharge;
- ii. The degree of pretreatment of the discharge;
- iii. Characteristics of the quality of the discharge.

(1) Unless otherwise approved by the Department, all analyses or estimates shall include the following parameters at a minimum:

- (A) Ammonia nitrogen (NH₃-N);
- (B) Nitrate nitrogen (NO₃-N);
- (C) Total Kjeldahl nitrogen (TKN);
- (D) Biochemical oxygen demand (BOD);
- (E) Chemical oxygen demand (COD);
- (F) Total dissolved solids (TDS);
- (G) Suspended solids (SS);
- (H) pH;
- (I) Calcium (Ca);
- (J) Magnesium (Mg);
- (K) Sodium (Na);
- (L) Phosphorus (P);
- (M) Fecal coliform bacteria;
- (N) Grease and oil;
- (O) Metals;
- (P) Base/neutral compounds;
- (Q) Acid extractable compounds;
- (R) Volatile organics; and
- (S) Pesticides.

(2) Dependent on the nature of the facility as described in accordance with (d)1 above, base/neutral compounds, acid extractable compounds, volatile organics and pesticides shall be analyzed for as required pursuant to N.J.A.C. 7:14A-4 Appendix A; and

iv. The compatibility of the wastewater with onsite soil conditions and vegetation (if any) shall be substantiated by the applicant;

3. Site related information as follows:

i. The present tax lot and block, municipality and county in which the facility is located or is proposed to be located;

ii. A general plan to scale showing at a minimum the location of the discharge to ground water with respect to the following within one half mile of the boundaries of discharge to ground water site:

(1) Property boundaries;

(2) Roadways;

(3) Existing and proposed land use of discharge to ground water site and surrounding areas;

(4) Adjacent property ownership and all dwellings and buildings of human use or occupancy;

(5) Surface waters, including, but not limited to, perennial and intermittent streams, lakes, ponds and reservoirs; and

(6) Mines (surface and subsurface) and quarries;

iii. Topographic (two foot contour intervals), geologic and soils (USDA) maps of the discharge to ground water site and surrounding area sufficient to define conditions and evaluate probable impacts of the discharge to ground water.

iv. A plot plan to scale showing:

(1) The discharge to ground water area;

(2) Property boundaries;

(3) Roadways;

(4) Pre-treatment facilities;

(5) Storage facilities;

(6) All conveyance and distribution piping;

(7) Any sinkholes, gullies or soil erosional features (natural or man-made) within the discharge to ground water site which divert drainage from or through the facility property;

(8) Existing monitor and piezometer wells;

(9) Water supply wells including the depth of the screened interval and yield;

(10) A wellhead protection area certified by the Department;

(11) Soil borings, test pits and hydraulic conductivity tests;

(12) All wetlands and buffer zones; and

(13) All areas subject to flooding within the five-, 10- and 25-year storm events; and

v. A well inventory of the area within one half mile of the boundaries of the discharge to ground water indicating the depth of all existing domestic, municipal and industrial supplies. Yields of all wells exceeding 100,000 gallons per day or 70 gallons per minute shall be indicated on a location map or key map;

4. Soils and geologic evaluation as follows:

i. A sufficient number of borings shall be made of the disposal site to characterize and verify the subsurface conditions beneath the site with respect to the types of material, uniformity, depth to bedrock, and ground water elevations. When, in the judgment of the Department, the number of borings is not sufficient to adequately describe the geologic formations and ground water flow patterns below the disposal site, in regard to potential contaminant migration paths, supplemental borings or geophysical methods will be required;

ii. Data obtained from borings shall be collected by standard undisturbed soil sampling techniques for engineering properties, and split spoon sampling or standard penetration tests for classification. Samples shall be collected and classified continuously for the first 20 feet of boring and at five foot intervals thereafter;

iii. All borings shall extend to a minimum depth of 20 feet unless specified by the Department. The Department shall require deeper borings in areas in which 20 feet is not sufficient to describe the geologic formations and ground water flow patterns in regard to the potential contaminant migration paths;

iv. Logs shall be submitted for each boring, regarding rock and soil conditions encountered. Each log shall include a soil or rock description in accordance with recognized standard methods (USDA, Unified or Burmeister Soil Classification System; Rock Quality Description System), depth of individual soil or rock strata, water levels encountered, blow counts, depth of soil tests and dates. All depths described within the boring logs shall be correlated to New Jersey Geodetic Control Survey Datum;

v. A sufficient number of test pits necessary to characterize all soil series within the discharge to ground water site shall be excavated. Each test pit log shall describe each recognizable soil horizon or substratum for depth and thickness, soil color using the Munsell System of Classification (including abundance, size and contrast of mottling where present), soil tex-

ture using the USDA Soil Textural Classification System, an estimation of the volume of coarse fragment (where present), soil structural class and soil consistency;

vi. A determination of depths to seasonal high water table specifying the methodology used to make the determination; and

vii. A description of the physiographic region and geologic formation(s) into which pollutants are discharged. Site specific geology including, but not limited to, bedrock outcrop, strike and dip of sedimentary formations and foliation trend and dip angles of igneous and metamorphic rocks, faults, joint and fracture trends in bedrock including dip angles, trend direction of solution channels in karst topography, saprolite development, clay lenses or fragipans, perched water tables or any other geologic features which may impede the treatment and/or disposal of pollutants shall be described;

5. Hydrogeologic evaluation as follows:

i. A determination of ambient or background ground water quality shall be required for the parameters listed in (d)2iii(1) above. The well used to characterize background water quality shall be located where unaffected, or if not possible where least impacted, by the discharge. Data shall be provided to show that background water quality wells are located in the same hydrologic units as the wells subsequently used to monitor the impact of the discharge;

ii. A representative determination of background ground water quality shall be made for all parameters specified in (d)2iii(1) above. A minimum of five samples shall be collected over a time period which is representative of spatial or seasonal variations in quality. The arithmetic mean and variance shall be determined for each respective parameter concentration by pooling the measurements in samples;

iii. Ground water samples shall be collected within 18 months before the date of receipt by the Department of the application for a permit under this section from well(s) located hydraulically upgradient from the discharge to ground water;

iv. A sufficient number of tests shall be performed in order to characterize onsite hydrogeologic characteristics, including, but not limited to, horizontal hydraulic conductivity, ground water flow velocity and hydraulic gradient. Where, in the judgment of the Department, the information submitted is insufficient to adequately evaluate the hydrogeologic characteristics of the site, supplemental tests or methods may be required; and

v. Ground water contour maps shall be submitted depicting both initial piezometric conditions and ground water flow conditions resulting from the growth and/or decay of ground water mound(s) induced by the

discharge to ground water. For facilities which have surface impoundments, the ground water contour map for the facility would not need to depict ground water recharge characteristics associated with surface impoundments. Ground water elevations shall be based upon synoptic well data collected within 18 months of the date of receipt by the Department of an application for a permit under this section; and

6. Engineering information as follows:

i. Engineering plans and specifications for the entire project, describing the proposed treatment process(es) and facilities, storage facilities (if necessary), conveyance systems, disposal facilities, equipment specifications, capacities and all related engineering and operational data;

ii. Description of the method by which compliance with Ground Water Quality Standards are to be achieved; and

iii. A calculation of the surface run-off across the discharge to ground water site prepared using a 25-year storm, with estimates of the effect of such run-off on wastewater treatment, storage, disposal, and on erosion, flooding and related details.

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).

In (a)1, added "as provided in N.J.A.C. 7:14A-25.9(d)1 for certain stormwater discharges, or".

7:14A-7.10 Additional requirements for applications for NJPDES-DGW permits for surface impoundments

(a) In addition to the general requirements for applications for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit for a surface impoundment shall submit to the Department the information as required in this section.

(b) Surface impoundments with both a primary liner and a secondary liner, as defined in N.J.A.C. 7:14A-1.2, which cover all surrounding earth likely to be in contact with the waste or leachate and which incorporate the use of a leachate collection system located between the liners designed to monitor for any failure of the primary liner and collect all leachate that may pass through as a result of primary liner failure, may pursue the monitoring style in N.J.A.C. 7:14A-7.6(d)1.

(c) Surface impoundments which treat, store, or dispose of hazardous waste shall comply with the requirements of N.J.A.C. 7:26G. Any surface impoundment that is not a solid waste facility pursuant to N.J.A.C. 7:26, shall comply with the provisions of this subchapter.

(d) Information shall be submitted concerning the resistance to oxidation and sunlight exposure of the wastewater to be impounded. Information shall also be submitted as to the physical and chemical compatibility of the liner material with on-site soils and the wastewater constituents.

Administrative correction.

See: 29 N.J.R. 3822(a).

Amended N.J.A.C. references.

7:14A-7.11 Additional requirements for applications for NJPDES-DGW permits for spray irrigation

(a) In addition to the general requirements for applications for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit for spray irrigation systems shall submit to the Department the information as required in this section.

(b) In addition to the soils evaluation requirements in N.J.A.C. 7:14A-7.9(d)4, soil pH, cation exchange capacity, percent base saturation, exchangeable sodium percentage and electrical conductivity shall be analyzed for each horizon within the soil column for each soil series within the discharge to ground water area.

(c) Climate related information, reported on a monthly basis, including, but not limited to, total precipitation, total snowfall, mean number of days with precipitation exceeding 0.10 and 0.50 inches, mean temperature, mean daily maximum and minimum temperatures and mean number of days with mean temperature less than 32 degrees Fahrenheit. All data shall be collected from the nearest National Weather Service weather station, for the 10 year period preceding the date of receipt by the Department of the application for a permit under this section.

(d) A description of the proposed cover crop and natural vegetation, including, but not limited to, nutrient requirements, length of growing season, water tolerance and sensitivity to wastewater constituents being land applied as well as a detailed long term vegetation or crop management program, including use or disposal of the crop.

7:14A-7.12 Additional requirements for applications for NJPDES-DGW permits for overland flow

(a) In addition to the general requirements for applications for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit by overland flow shall submit to the Department the information as required in this section.

(b) In addition to the soils evaluation requirements in N.J.A.C. 7:14A-7.9(d)4, soil pH, cation exchange capacity, percent base saturation, exchangeable sodium percentage and electrical conductivity shall be analyzed for each horizon within the soil column for each soil series within the discharge to ground water area.

(c) Climate related information, reported on a monthly basis including but not limited to total precipitation, total snowfall, mean number of days with precipitation exceeding 0.10 and 0.50 inches, mean temperature, mean daily maximum and minimum temperatures and mean number of days with mean temperature less than 32 degrees Fahrenheit. All data shall be collected from the nearest National Weather Service weather station, for the 10 year period preceding the date of receipt by the Department of the application for a permit under this section.

(d) A description of the proposed cover crop and natural vegetation, including, but not limited to, nutrient requirements, length of growing season, water tolerance and sensitivity to wastewater constituents being land applied, as well as a detailed long term vegetation or crop management program, including use or disposal of the crop.

7:14A-7.13 Additional requirements for applications for NJPDES-DGW permits for infiltration/percolation lagoons

(a) In addition to the general requirements for applications for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit by infiltration/percolation lagoons shall submit to the Department the information as required in this section.

(b) Climate related information, reported on a monthly basis including but not limited to total precipitation, total snowfall, mean number of days with precipitation exceeding 0.10 and 0.50 inches, mean temperature, mean daily maximum and minimum temperatures and mean number of days with mean temperature less than 32 degrees Fahrenheit. All data shall be collected from the nearest National Weather Service weather station, for the 10 year period preceding the date of receipt by the Department of the application for a permit under this section.

(c) A description of the proposed cover crop or natural vegetation within the lagoon area and a detailed long term vegetation or crop management program, including use or disposal of the crop.

7:14A-7.14 Additional requirements for applications for NJPDES-DGW permits for residual surface impoundments

(a) In addition to the general requirements for applications for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit for a residual surface impoundment shall submit to the Department the information as required in this section.

1. A description of residual characteristics as follows:
 - i. The origin and volume of residual;

ii. Dated analysis of the residual on a mg/kg dry weight basis, including all constituents required to be analyzed in accordance with the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14C; and

iii. Additional quality analyses as deemed necessary by the Department based on its evaluation of past SQAR reports or other related information, such as information on industrial discharges which may contribute constituents not normally evaluated under the SQAR program or which may contribute constituents identified in USEPA's Technical Support Document for Surface Disposal of Sewage Sludge.

iv. Any additional residual monitoring data the applicant compiled prior to applying for a permit, including available ground water monitoring data, with descriptions of well locations and depth to ground water;

2. Operational and procedural information as follows:

i. Procedures to fill the residual surface impoundment or residual infiltration/percolation lagoon which provide for uniform distribution;

ii. Application or loading rates as well as procedures for periodic evacuation for cleaning and inspection or to provide the resting phases;

iii. A schedule for periodic removal of residual and designation of ultimate management sites;

iv. The frequency of inspection of containment structures for routine maintenance and leakage, wall or liner failures or imperfections and general site management;

v. A spill control plan (for example, overflow prevention devices and/or high level alarms and automatic shut-off valves on influent lines) and emergency response procedures; and

vi. Facility operations, including volumes of residual to be handled, methods of handling, facility layout and use or disposal methods; and

3. Surface impoundments which treat, store, or dispose of hazardous waste shall comply with the requirements of N.J.A.C. 7:26G. Any surface impoundment that is not a solid waste facility pursuant to N.J.A.C. 7:26 shall comply with the provisions of N.J.A.C. 7:14A-7.10.

Administrative correction.
 See: 29 N.J.R. 3822(a).
 Amended N.J.A.C. references.
 Amended by R.1999 d.164, effective May 17, 1999.
 See: 31 N.J.R. 200(a), 31 N.J.R. 1320(a).
 In (a)ii, changed N.J.A.C. reference.

7:14A-7.15 Additional requirements for applications for NJPDES-DGW permits for disposal of dredge spoils

(a) In addition to the general requirements for discharge to ground water permits in N.J.A.C. 7:14A-7.9, an applicant for a NJPDES Discharge to Ground Water permit for land

application of dredge spoils shall submit to the Department the information as required in this section.

(b) The applicant shall provide a proposed dredge spoils disposal plan containing the following components:

1. An engineering design and construction plan, including at a minimum;

i. A description of proposed pre-construction site work, grading, and foundation preparation;

ii. A description of characteristics of liners or other foundation materials;

iii. Results of stability analyses of dikes and berms with respect to operational stresses; and

iv. A description of the onsite and offsite transportation system, including transportation of dredge spoils to the site, routing, loading/unloading, and construction and maintenance of roads;

2. An operation/maintenance plan that includes:

i. A plan that details the filling sequence;

ii. A plan detailing staging, and interim storage of materials prior to disposal into the confined upland site;

iii. Provisions for dust control, and control of fugitive dust emissions; and

iv. Use of intermediate and final cover;

3. A Ground Water Protection Program demonstrating that the disposal of dredge spoils will not contravene the Ground Water Quality Standards of N.J.A.C. 7:9-6. The Ground Water Protection Program shall identify and discuss the monitoring system to be employed pursuant to N.J.A.C. 7:14A-7.6(b) in consideration of the following:

i. With the exception of facilities which qualify for the monitoring style in N.J.A.C. 7:14A-7.6(d)1, the maximum leachate concentration of the dredge spoils shall be determined by subjecting an adequate number of samples to leaching tests. The determination of what constitutes an adequate number of samples shall be in accordance with a statistical method, as described in N.J.A.C. 7:14A-7.7 above. Leaching tests shall be performed according to the methods described by the U.S. Army Corps of Engineers, Waterways Experiment Station (WES), or other test approved by the Department.

ii. With the exception of facilities which qualify for the monitoring style in N.J.A.C. 7:14A-7.6(d)1, the leachate volume shall be estimated using the Hydrologic Evaluation of Landfill Performance (HELP) Model, EPA/600/9-94/xxx, U.S. Environmental Protection Agency Risk Reduction Engineering Laboratory, Cincinnati, OH.

iii. When the results of (b)3i and ii above indicate that the quality of the leachate shall exceed the ground water quality standards, the plan shall include a ground water flow and solute transport model that can demonstrate that the annual discharge of contaminants in the leachate will not result in contravention of the ground water quality standards; and

4. A closure/post closure care plan, that describes in detail:

i. The final cover to be used;

ii. A program to maintain the berms and dikes;

iii. Plans to maintain or control vegetation; and

iv. Plans to limit access using fences, and gates, etc.; and

v. A financial plan that describes in detail how the closure improvements shall be maintained for 30 years.

SUBCHAPTER 8. ADDITIONAL REQUIREMENTS FOR UNDERGROUND INJECTION CONTROL (UIC) PROGRAM

7:14A-8.1 Purpose and scope

(a) This subchapter establishes a system of controls to ensure that underground injection practices do not endanger underground sources of drinking water (USDWs). The goal of this subchapter is preventive. The Department's policy is to liberally interpret and enforce this subchapter to prevent the contamination of the State's ground water resources.

(b) This subchapter regulates the disposal of wastes by well injection as well as the underground storage of fluids (including gases) which have been emplaced by means of an injection well and the injection of water. Paragraph (b)1 below sets forth examples of the underground injection activities regulated under this subchapter. All injection wells are divided into five classifications, which are set forth at N.J.A.C. 7:14A-8.2.

1. The following injection wells are among the injection activities regulated under this subchapter:

i. Any injection well located on a drilling platform within the State's territorial waters;

ii. Any well, including any dug hole, that is deeper than its largest surface dimension, where the principal function of the well is emplacement of fluids;

iii. Any septic system, disposal bed, seepage pit, or cesspool used by a generator of hazardous waste, or by an owner or operator of a hazardous waste management facility to dispose of fluids containing hazardous waste;

iv. Any one subsurface disposal system or multiple subsurface disposal systems, on a single property, for which the aggregate sanitary wastewater design flow is in excess of 2000 gpd, calculated in accordance with the minimum standards for average facilities listed in the Department's Standards for Individual Subsurface Sewage Disposal Systems, at N.J.A.C. 7:9A-7.4; and

v. Any injection well used to inject industrial wastes, including but not limited to drywells, leaching fields, septic systems, and seepage pits.

2. The following injection activities are not regulated under this subchapter;

i. Any injection well located on a drilling platform or other site that is beyond the State's territorial waters;

ii. Any single family residential subsurface sewage disposal system that is designed, constructed, installed and operated in compliance with the Realty Improvement Sewerage and Facilities Act, N.J.S.A. 58:11-23 et seq., and the Department's Standards for Individual Subsurface Sewage Disposal Systems, N.J.A.C. 7:9A, where applicable;

iii. Any hole which is not used for emplacement of fluids underground;

iv. Any injection into a pre-constructed tank for the purpose of storage of fluids. Owners or operators of these injection wells may be subject to the Underground Storage Tank rules at N.J.A.C. 7:14B; and

v. Injection wells used for injection of hydrocarbons which are pipeline quality and are gases at standard temperature and pressure for the purpose of storage.

7:14A-8.2 Classification of injection wells

(a) Injection wells are classified as Class I, II, III, IV or V, as follows:

1. Class I wells are:

i. Wells used by generators of hazardous wastes or owners or operators of hazardous waste management facilities, or by any other person, to inject hazardous waste beneath the lowermost formation containing an underground source of drinking water; and

ii. Other industrial or municipal disposal wells which inject fluids beneath the lowermost formation containing an underground source of drinking water.

2. Class II wells inject fluids:

i. Which are brought to the surface in connection with conventional oil or natural gas production;

ii. For enhanced recovery of oil or natural gas; or

iii. For storage of hydrocarbons which are liquid at standard temperature and pressure.

3. Class III injection wells are used in processes to extract minerals or energy, including:

i. Mining of sulfur by the Frasch process;

ii. Solution mining of minerals, including sodium chloride, potash, phosphate, copper, uranium and any other minerals which can be mined by this process;

iii. In-situ combustion of fossil fuel, with the term "fossil fuel" including coal, tar sands, oil shale and any other fossil fuel which can be mined by this process; and

iv. Wells used in the recovery of geothermal energy to produce electric power, but not including wells used in heating or aquaculture, which fall under Class V.

4. Class IV injection wells are used by generators of hazardous wastes or of radioactive wastes, by owners or operators of hazardous waste management facilities, by owners or operators of radioactive waste disposal sites, or by any other person to dispose of hazardous wastes or radioactive wastes into or above a formation which, within two miles of the well bore, contains an underground source of drinking water (USDW).

5. Class V injection wells are injection wells not included in Class I, II, III or IV. Examples of Class V wells include:

i. Air conditioning return flow wells used to return the water used for heating or cooling in a heat pump;

ii. Cooling water return flow wells used to inject water previously used for cooling;

iii. Drainage wells used to drain storm runoff into a subsurface formation, except as regulated under Class IV;

iv. Recharge wells used to replenish the water in an aquifer;

v. Salt water intrusion barrier wells used to inject water into a fresh water aquifer to prevent the intrusion of salt water into the fresh water;

vi. Sand backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined-out portions of subsurface mines;

vii. All septic systems or other subsurface sewage disposal systems other than those excluded under N.J.A.C. 7:14A-8.1(b)2ii;

viii. Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a non-oil or gas producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water; and

ix. Geothermal wells and ground water heat pumps used in heating and aquaculture.

7:14A-8.3 Prohibition of unauthorized injection

Any underground injection is prohibited, except pursuant to a permit-by-rule under N.J.A.C. 7:14A-8.5, or pursuant to a UIC permit under N.J.A.C. 7:14A-8.8. The construction of any well required to have a permit (including, where applicable, a well permit) under this subchapter is prohibited, except pursuant to such permit-by-rule or UIC permit.

Amended by R.2004 d.47, effective February 2, 2004.
See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).
Rewrote the section.

7:14A-8.4 Prohibition of movement of fluid into underground sources of drinking water

(a) No UIC permit or approval under a permit-by-rule shall be issued or provided under this subchapter in the following circumstances:

1. Where a Class I, II or III well may cause or allow movement of any contaminant into underground sources of drinking water;
2. Where a Class IV or V well may cause or allow movement of fluid containing any contaminant into underground sources of drinking water, and the presence of that contaminant may adversely affect the health of persons; or
3. Where a Class V well is:
 - i. A large-capacity cesspool (design flow greater than 2,000 gallons per day). All large-capacity cesspools authorized by this subchapter shall be closed by April 5, 2005. Large-capacity cesspools shall be closed in accordance with N.J.A.C. 7:14A-8.16(d)2. The owner or operator shall notify the Department of intent to close at least 30 days prior to closure; or
 - ii. Except as provided at (a)3ii(1) below, a motor vehicle waste disposal well. A motor vehicle waste disposal well is an injection well that receives or has received fluids from motor vehicle repair or maintenance activities, such as an auto body repair shop, automotive repair shop, car dealership, specialty repair shop (for example, transmission and/or muffler repair shop), or any facility that does any motor vehicle repair work.

(1) Motor vehicle waste disposal wells constructed prior to April 5, 2000 shall be authorized under a permit in accordance with N.J.A.C. 7:14A-8.8, closed in accordance with N.J.A.C. 7:14A-8.16(d)2, or converted to another type of Class V well in accordance with N.J.A.C. 7:14A-8.16(g).

(2) Motor vehicle waste disposal wells that continue to operate in accordance with a permit shall meet Ground Water Quality Standards, N.J.A.C. 7:9-6, at the last accessible sampling point prior to waste fluids being released into the subsurface environment. The owner or operator shall notify the Department of intent to close at least 30 days prior to closure.

(b) For Class I, II and III wells, and any Class IV well allowed under N.J.A.C. 7:14A-8.7(b), if any monitoring indicates the movement of injection or formation fluids into underground sources of drinking water, the Department shall prescribe such additional requirements for construction, corrective action, operation, monitoring, or reporting (including closure of the injection well) as are necessary to control or prevent such movement. These additional requirements shall be imposed by modifying the permit in accordance with N.J.A.C. 7:14A-2.12, or the permit shall be terminated under N.J.A.C. 7:14A-2.13 if cause exists, or appropriate enforcement action shall be taken if the permit has been violated.

(c) For Class V wells, if at any time the Department learns that a Class V well may cause a violation of the State primary drinking water rules under N.J.A.C. 7:10, or any Groundwater Quality Standards under N.J.A.C. 7:9-6, the Department shall:

1. Require the owner or operator of the injection well to obtain a UIC permit pursuant to N.J.A.C. 7:14A-8.8; and
2. Order the owner or operator of the injection well to take such actions (including, where required, closure of the injection well) as may be necessary to prevent the violation and/or take enforcement action.

(d) Whenever the Department finds that a Class V well may otherwise be adversely affecting the health of persons, the Department may prescribe such actions as may be necessary to prevent the adverse effect, including any action authorized under (c) above.

(e) Notwithstanding any other provision of this section, the Department shall take emergency action upon receipt of information that a contaminant is present in or is likely to enter an underground source of drinking water that presents an imminent and substantial endangerment to the health of persons.

Amended by R.2004 d.47, effective February 2, 2004.
See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).

In (a), rewrote introductory paragraph and added new 3; rewrote (c)1.

7:14A-8.5 Authorization of injection into Class V wells by permit-by-rule

(a) Any owner or operator of a Class V underground injection well who has submitted the inventory information, pursuant to (c) below, prior to May 5, 1997 shall be deemed to have a permit-by-rule.

(b) An owner or operator of any of the Class V injection wells described in (b)1 through 11 below is deemed to have a permit-by-rule under this subsection if the owner or operator complies with the applicable requirements specified in this subsection.

1. Subsurface sewage disposal systems, other than those excluded under N.J.A.C. 7:14A-8.1(b)2, that are designed, constructed, installed and operated in compliance with the Realty Improvement Sewerage and Facilities Act, N.J.S.A. 58:11-23 et seq., and the Department's Standards for Individual Subsurface Sewage Disposal Systems, N.J.A.C. 7:9A, where applicable;

2. Injection wells used as a component of closed loop heat pump systems constructed according to any well permit condition(s)/standards adopted pursuant to N.J.S.A. 58:4A-4.1 et seq. All closed loop systems shall contain only fluids that are allowable under conditions of such well permit, and are leak proof such that the only discharge is heat content;

3. Injection wells used as components of an open loop heat pump system constructed in accordance with all applicable well construction requirements of N.J.A.C. 7:10-12. Any such injection well shall discharge water into the same aquifer from which the water was drawn and with a quality that is the same as the ambient ground water, except for heat content;

4. Air conditioning or cooling water return flow injection wells that are constructed in accordance with all applicable well construction requirements of N.J.A.C. 7:10-12 that discharge water into the same aquifer from which the water was drawn and with a quality that is the same as the ambient ground water, except for heat content;

5. Underground injection of swimming pool filter backwash water and water softener backwash water into seepage pits, when the activity is conducted in accordance with N.J.A.C. 7:14A-8.18;

6. Underground injection wells associated with the feasibility or engineering design studies necessary to obtain or comply with a water supply allocation permit pursuant to N.J.A.C. 7:19 or NJPDES permit pursuant to this chapter;

7. Underground injection of stormwater runoff from the roofs of buildings, so long as the roofs are devoid of pollutant sources and devices (for example, motors, tanks, drums) that contain pollutants;

8. Underground injection of stormwater discharges from municipal separate storm sewers that are not identified under N.J.A.C. 7:14A-25.2(a) or (b);

9. Underground injection of stormwater discharges from residential areas (including residential streets, parking lots, easements, and open space), or from commercial areas other than areas of high pollutant loading as described under N.J.A.C. 7:14A-7.4(b)5ii, unless N.J.A.C. 7:14A-25.2(a) or (b) requires the operating entity to apply for a NJPDES permit for the discharge;

10. Underground injection of stormwater discharges from animal feeding operations that do not require a NJPDES permit under N.J.A.C. 7:14A-2.13; and

11. Underground injection wells used during the remediation of a contaminated site where the person conducting the remediation meets the conditions set forth at N.J.A.C. 7:14A-7.5(b).

(c) The owner or operator of a Class V injection well shall submit inventory information to the Department at the address indicated in (i) below within 90 days of a notification by the Department. Notification shall be a public notice in a local newspaper or in the New Jersey Register, or a written request. The inventory information shall consist, at a minimum, of the following information:

1. The well drilling permit number, where applicable;
2. The facility name and location;
3. The name and address of the legal contact;
4. The ownership of the facility;
5. The nature and type of injection well(s);
6. The operating status of injection well(s); and
7. The type, quantity and quality of discharge.

(d) The Department will notify pursuant to (e) below any owner or operator of any Class V injection well authorized by rule pursuant to this section to apply for and obtain a UIC permit pursuant to N.J.A.C. 7:14A-8.8, if:

1. The injection well is no longer a Class V well;
2. The protection of underground sources of drinking water (USDW) requires that the injection shall be subject to requirements such as corrective action, monitoring and reporting, or operation not required by the permit-by-rule;
3. The injection well is likely to adversely affect the existing or potential use of the aquifer; or
4. The discharge is presumed to contravene the Ground Water Quality Standards in N.J.A.C. 7:9-6

(e) The Department shall notify in writing the owner or operator of a Class V injection well required pursuant to (d) above to apply for and obtain a UIC permit pursuant to N.J.A.C. 7:14A-8.8. The notice shall include a brief statement of the reasons for the decision, instructions on how to apply for the UIC permit, a statement setting a time by which the owner or operator must apply for the permit, and a statement that upon the effective date of the UIC permit authorization the permit-by-rule under which the activity had been approved shall no longer apply.

(f) Any owner or operator of a Class V injection well approved under a permit-by-rule pursuant to this section may request to be excluded from the authorization by applying for a UIC permit pursuant to N.J.A.C. 7:14A-8.8. The owner or operator shall provide reasons supporting the request to the Department. The Department shall not issue

a permit for an injection well which is in violation of any other applicable statutes or regulations.

(g) Any approval for a Class V injection well under a permit-by-rule pursuant to this section shall expire upon the effective date of a UIC permit authorization issued pursuant to N.J.A.C. 7:14A-8.8 for such injection well.

(h) The owner or operator of a Class V injection well approved under a permit-by-rule pursuant to this section is prohibited from injecting into the well:

1. Upon the effective date of denial of an application;
2. Upon failure to submit inventory or other information in a timely manner pursuant to this section;
3. Upon failure to comply with the provisions of an enforcement action; and
4. Upon notification by the Department to cease injection.

(i) Inventory information required pursuant to (c) above shall be submitted to:

Department of Environmental Protection
Underground Injection Control Coordinator
PO Box 029
Trenton, New Jersey 08625-0029

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).

In (b), in introductory paragraph substituted "10" for "7"; added (b)8 through (b)10; in (d) added N.J.A.C. reference; rewrote (e) through (g); in (h), deleted old 3 and recodified existing 4 and 5 as 3 and 4.

Amended by R.2005 d.222, effective July 5, 2005.

See: 37 N.J.R. 405(a), 37 N.J.R. 2499(a).

Rewrote (a); in (b), substituted "11" for "10" preceding "below is deemed" in the introductory paragraph and added 11.

7:14A-8.6 Identification of underground sources of drinking water

The Department may identify (by narrative description, illustrations, maps, or other means) and shall protect as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition of an "underground source of drinking water" in N.J.A.C. 7:14A-1.2. Even if an aquifer has not been specifically identified by the Department as such, it is an underground source of drinking water if it meets the definition in N.J.A.C. 7:14A-1.2.

7:14A-8.7 Prohibition and elimination of underground injection of hazardous and radioactive wastes

(a) Except as provided at (b) below, any underground injection of hazardous wastes or radioactive wastes is prohibited. This specifically prohibits the operation of Class IV injection wells, and prohibits hazardous and radioactive wastes from being injected into Class I injection wells.

(b) The Department may, at its discretion, authorize the construction and/or operation of a Class IV or Class I well to inject ground water that has been treated and is being reinjected into the same formation from which it was drawn. The Department's implementation of this injection activity shall be pursuant to provisions for cleanup of releases under CERCLA, or RCRA, as described in 40 C.F.R. 144.13(c), or when conducted under Department oversight pursuant to the Underground Storage Tanks rules at N.J.A.C. 7:14B, the Industrial Site Recovery Act (N.J.S.A. 13:1K 6 et seq., as amended), or the Procedures for Department Oversight of the Remediation of Contaminated Sites at N.J.A.C. 7:26C. These injection activities shall generally be conducted to alleviate a situation posing a substantial danger to public health or safety or when necessitated by public health or environmental considerations (for example, when injection wells are used as a component of a ground water remediation program).

(c) Abandonment and closure of any injection well that is injecting, or has ever injected, hazardous wastes (including Class IV and Class I injection wells) shall be performed in compliance with all applicable Department regulations for remediation of contaminated sites including the Procedures for Department Oversight of the Remediation of Contaminated Sites (N.J.A.C. 7:26C).

7:14A-8.8 Authorization by permit

(a) Any underground injection well not authorized by a permit-by-rule in accordance with N.J.A.C. 7:14A-8.5 requires a UIC permit in accordance with this section.

(b) The owner or operator shall apply for a UIC permit in accordance with N.J.A.C. 7:14A-4. An application for a well-drilling permit, if applicable, shall be submitted concurrently in accordance with N.J.S.A. 58:4A-4.1.

(c) The information required by the Department for a UIC permit application for a Class I, II, III or V injection well is listed in N.J.A.C. 7:14A-8.17.

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).

Rewrote (b).

7:14A-8.9 Additional conditions applicable to Class I, II, III and V UIC permits

(a) The following conditions, in addition to those set forth in N.J.A.C. 7:14A-2.5, apply to all UIC permits for Class I, II, III and V injection wells, and shall be incorporated into these UIC permits either expressly or by reference. If incorporated by reference, a specific citation to this subchapter shall be given in the permit.

1. The permittee does not need to comply with certain provisions of N.J.A.C. 7:14A-6.10 when such noncompliance is authorized by a temporary emergency permit under N.J.A.C. 7:14A-6.14.

- vi. Lithology of injection and confining zones; and
- vii. Type and grade of cement.

3. Appropriate logs and other tests shall be conducted during the drilling and construction of new Class III wells. A descriptive report interpreting the results of such logs and tests shall be prepared by a qualified log analyst and submitted to the Department. The logs and tests appropriate to each type of Class III well shall be determined based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time to time as the construction of the well progresses. At a minimum, such logs and tests shall include deviation checks conducted on all holes where pilot holes and reaming are used, at sufficiently frequent intervals to ensure that vertical avenues for fluid migration in the form of diverging holes are not created during drilling.

4. Where the injection zone is a water-bearing formation, the following information concerning the injection zone shall be determined or calculated for new Class III wells:

- i. Fluid pressure;
- ii. Temperature;
- iii. Fracture pressure;
- iv. Other physical and chemical characteristics of the injection zone;
- v. Physical and chemical characteristics of the formation fluids; and
- vi. Compatibility of injected fluids with formation fluids.

5. Where the injection zone is not a waterbearing formation, the information in (b)4 above shall be determined or calculated and submitted to the Department.

6. Where injection is into a formation which contains water with less than 10,000 mg/l total dissolved solids (TDS), monitoring wells shall be completed into the injection zone and into any underground sources of drinking water above the injection zone which could be affected by the mining operation. These wells shall be located so as to detect any excursion of injection fluids, process by-products, or formation fluids outside the mining area or zone. If the operation may be affected by subsidence or catastrophic collapse, the monitoring wells shall be located so that they will not be physically affected.

7. Where injection is into a formation which does not contain water with less than 10,000 mg/l TDS, monitoring requirements may be less stringent.

8. Where the injection wells penetrate an underground source of drinking water (USDW) in an area subject to subsidence or catastrophic collapse monitoring

wells shall be installed into the USDW in sufficient numbers to detect any movement of injected fluids, process by-products or formation fluids into the USDW. The monitoring wells shall be located outside the physical influence of the subsidence or catastrophic collapse.

9. In determining the number, location, construction and frequency of monitoring of the monitoring wells, the following criteria shall be considered:

- i. The population relying on the USDW affected or potentially affected by the injection operation;
- ii. The proximity of the injection operation to points of withdrawal of drinking water;
- iii. The local geology and hydrology;
- iv. The operating pressures and whether a negative pressure gradient is being maintained;
- v. The nature and volume of the injected fluid, the formation water, and the process by-products; and
- vi. The injection well density.

(c) Operating, monitoring, and reporting requirements for Class III wells are as follows:

1. Operating requirements shall, at a minimum, specify that:

- i. Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to ensure that the pressure in the injection zone during the injection does not initiate new fractures or propagate existing fractures in the injection zone, initiate fractures in the confining zone, or cause the migration of injection or formation fluids into an underground source of drinking water; and
- ii. Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

2. Where appropriate, Class III wells may be monitored on a field or project basis rather than an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well, operating with a common manifold. Separate monitoring systems for each well are not required, provided the owner or operator demonstrates that manifold monitoring is comparable to individual well monitoring. Monitoring requirements shall, at a minimum, include:

- i. Analyses of the injected fluids with sufficient frequency to yield data representative of the fluids' characteristics;
- ii. Installation and use of continuous recording devices to monitor the injection pressure, flow rate and volume;

iii. A demonstration of mechanical integrity pursuant to N.J.A.C. 7:14A-8.12(c) at least once every five years during the life of the well;

iv. Weekly monitoring of fluid level and the parameters chosen to measure water quality in the injection zone; and

v. Quarterly monitoring of wells adjacent to the injection site to detect any migration from the injection zone into a USDW.

(d) Reporting requirements shall, at a minimum, include:

1. Quarterly reports to the Department on monitoring required;

2. Results of mechanical integrity, and any other periodic test required by the Department, reported with the first regular report after completion of the test; and

3. Monitoring may be reported on a project or field basis rather than on an individual well basis where manifold monitoring is used.

7:14A-8.16 Specific operating criteria and construction standards applicable to Class V injection wells

(a) This section establishes the operating criteria and construction standards for Class V wells.

(b) Class V wells shall, at a minimum, be constructed in accordance with the requirements and specifications set forth in N.J.A.C. 7:9 or 7:9A.

1. Well drilling permit requirements:

i. Where applicable, any owner or operator of a new Class V well shall obtain a well drilling permit before the commencement of any construction, in accordance with the Subsurface and Percolating Waters Act, particularly N.J.S.A. 58:4A-4.1. Information and applications for a well permit may be obtained from:

NJDEP
Water Supply Administration
Bureau of Water Allocation
PO Box 426
Trenton, New Jersey 08625-0426

2. Where applicable, individual subsurface sewage disposal systems, septic systems, or disposal beds shall be constructed in accordance with N.J.A.C. 7:9A.

3. The following information shall be submitted to the Department with the application for an individual UIC permit for a Class V well:

i. Detailed plans for construction of the injection well, including materials used and geologic or soil characteristics;

ii. Detailed description and analyses of fluids to be injected; and

iii. Description of the method of injection.

(c) Operating requirements for Class V wells are as follows:

1. Injection wells constructed in accordance with N.J.S.A. 58:4A-4.1 shall be maintained in accordance with N.J.A.C. 7:10-12 or any other pertinent regulations, or in accordance with requirements of the UIC permit.

2. Septic systems, disposal beds, or other subsurface sewage disposal systems shall be maintained in accordance with N.J.A.C. 7:9A or in accordance with the requirements of the UIC permit.

(d) Plugging and abandonment requirements for Class V wells are as follows:

1. Class V wells shall be plugged and abandoned in accordance with the requirements of N.J.S.A. 58:4A-4.1 et seq. and N.J.A.C. 7:9-9, Sealing of Abandoned Wells, where applicable. Cessation of injection operations constitutes abandonment in accordance with the requirements of N.J.S.A. 58:4A-4.1. The improper maintenance of a well may constitute abandonment of that well in accordance with N.J.S.A. 58:4A-4.1. The plugging and abandonment of injection wells constructed or operated in accordance with N.J.A.C. 7:9A are, at a minimum, to be abandoned in accordance with N.J.A.C. 7:9A-12.8.

2. Large-capacity cesspools as identified in N.J.A.C. 7:14A-8.4(a)3i and motor vehicle waste disposal wells as identified in N.J.A.C. 7:14A-8.4(a)3ii shall be closed in a manner that does not cause a violation of the State primary drinking water regulations under N.J.A.C. 7:10, or any Ground Water Quality Standards under N.J.A.C. 7:9-6. At a minimum:

i. Large-capacity cesspools and motor vehicle waste disposal wells shall be emptied of wastes. Any soil, gravel, or other loose material within two feet from the bottom and sides which were exposed to waste shall be removed (except for large-capacity cesspools that have not received industrial wastes). Following such emptying and removal, the cavity shall be filled with clean gravel, stones, or soil material;

ii. All influent and effluent lines shall be excavated, removed or sealed such that no leaching of contaminants can occur; and

iii. All wastes or other materials emptied or removed under (d)2i above shall be managed in accordance with this chapter and the State Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and its implementing rules at N.J.A.C. 7:26, 7:26A and 7:26G.

3. Other Class V wells shall be plugged and abandoned in accordance with the terms of a UIC permit. These permit conditions shall include the following conditions:

i. All septic systems, seepage pits, dry wells and cesspools shall be emptied of wastes and removed or filled with gravel, stones, or soil material, in a manner which is acceptable to the administrative authority as defined in N.J.A.C. 7:9A-1;

ii. All influent and effluent lines shall be excavated, removed or sealed such that no leaching of contaminants can occur; and

iii. When components or residuals (for example, gravel filter material, fill material, soil) from an abandoned individual subsurface sewage disposal system are removed from the ground, such components or residuals shall be managed as follows:

(1) Any off site disposal of components and residuals from an abandoned system shall be managed in accordance with the State Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) and its implementing rules at N.J.A.C. 7:26, 7:26A and 7:26G; and

(2) Onsite management of components and residuals from abandoned systems shall be in a manner which is acceptable to the administrative authority as defined in N.J.A.C. 7:9A-1.

(e) The UIC permit-by-rule authorization for any Class V well which fails to comply with the requirements of this section automatically terminates.

(f) Injection wells that exert a total pressure that exceeds the pressure exerted by the fluid under the influence of gravity at its height above the point of discharge plus the atmospheric pressure, shall be required to follow the standards described for Class I wells.

(g) Requirements for converting a Class V motor vehicle waste disposal well to another type of Class V well are as follows:

1. An application for an individual UIC permit shall be submitted, and shall include:

i. The information required under N.J.A.C. 7:14A-8.17;

ii. A description of how the requirements in (g)2 and 3 below will be met; and

iii. A description of how all motor vehicle waste will be managed in accordance with this chapter and the State Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and its implementing rules at N.J.A.C. 7:26, 7:26A and 7:26G.

2. All motor vehicle waste is segregated from the intended discharge by physical barriers and is not allowed to enter the well. The use of a semi-permanent plug as the means to segregate waste is not sufficient to convert a motor vehicle waste disposal well to another type of Class V well;

3. The motor vehicle waste disposal well is emptied of wastes. Any soil, gravel, or other loose material within two feet from the bottom and sides which were exposed to waste is removed. All wastes or other materials emptied or removed are managed in accordance with this chapter and the State Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and its implementing rules at N.J.A.C. 7:26, 7:26A and 7:26G;

4. The Department finds that injection of motor vehicle waste into the well following conversion is unlikely based on the facility's compliance history and records showing proper waste disposal; and

5. The Department approves such conversion in writing.

Amended by R.2004 d.47, effective February 2, 2004.

See: 35 N.J.R. 169(a), 35 1331(a), 36 N.J.R. 813(a).

In (b)1i, updated address; in (c) deleted "individual" throughout; in (d), inserted new 2, recodified existing 2 to 3; added (g).

7:14A-8.17 Additional requirements for applications for individual UIC permits

(a) In addition to the information required to be submitted pursuant to N.J.A.C. 7:14A-4 and 8.8, and after consultation with the Department, an applicant for an individual NJPDES UIC permit for a Class I, II, III or V well shall submit those items in (a)1 through 5 below as required by the Department.

1. For a permit for an existing Class I, II, III and V well to operate or the construction or conversion of a new Class I, II, III and V well:

i. A map showing the injection well(s) for which a permit is sought and the applicable area of review, determined as per N.J.A.C. 7:14A-8.12(a). Within the area of review, the map shall show the number, or name, and location of all producing wells, injection wells, abandoned wells, dry holes, or wells, surface bodies of water, springs, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. All wells, reservoirs, and other bodies of water used for public water supply that are within a five mile radius of the injection well shall be indicated. The map shall also show geologic faults, if known or suspected;

ii. A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone. Such data shall include a description of each well's type, geological and geophysical logs, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Department may require;

iii. Geologic name(s), maps, and cross sections indicating the general vertical and lateral limits of all underground sources of drinking water within the area of review, their position relative to the injection formation and the direction of water movement, where

known, in each underground source of drinking water which may be affected by the proposed injection;

iv. Maps and cross sections detailing the geological structure of the local area;

v. Generalized maps and cross section illustrating the regional geologic setting;

vi. Proposed operating data as follows:

(1) Average and maximum daily rate and volume of the fluid to be injected;

(2) Average and maximum injection pressure; and

(3) Source and analysis of the chemical, physical, radiological and biological characteristics of injection fluids;

vii. Proposed formation testing program to obtain an analysis of the chemical, physical, and radiological characteristics of and other information on the receiving formation;

viii. Proposed stimulation program;

ix. Proposed injection procedure;

x. Engineering drawings of the surface and subsurface construction details of the system;

xi. Any expected changes in pressure, native fluid displacement, direction of movement of injection fluid;

xii. Contingency plans to address all shut-ins or well failures so as to prevent migration of fluids into any underground source of drinking water;

xiii. Plans (including maps) for meeting the monitoring requirements for Class I, II and III wells as specified in this section;

xiv. For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under N.J.A.C. 7:14A-8.11; and

xv. Construction procedures including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing, and coring program.

2. For the approval of operation of a Class I, II, III and V well:

i. All available logging and testing program data on the well(s);

ii. A demonstration of mechanical integrity pursuant to N.J.A.C. 7:14A-8.12(c);

iii. The actual operating data;

iv. The results of the formation testing program;

v. The actual injection procedure;

vi. The compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone; and

vii. The status of corrective or preventive action on defective wells in the area of review.

3. For the approval of the plugging and abandonment of a Class I, II, III and V well or of a plan for same:

i. The type and number of plugs to be used;

ii. The placement of each plug including the elevation of the top and bottom;

iii. The type and grade and quantity of cement to be used;

iv. The method for placement of the plugs; and

v. The procedures to be used to meet the requirements of N.J.A.C. 7:14A-8.12(d)3.

4. For Class I, II and III wells, the corrective or preventive action proposed to be taken under N.J.A.C. 7:14A-8.11.

5. For Class V wells which are subsurface disposal systems, other than those regulated under the Standards for Individual Subsurface Sewage Disposal Systems, N.J.A.C. 7:9A, the information set forth at N.J.A.C. 7:14A-7.13.

7:14A-8.18 Specific operating criteria and construction standards applicable to permit by rule authorizations for underground injection into seepage pits

(a) This section sets forth the operating criteria and construction standards for underground injection into seepage pits under a permit-by-rule pursuant to N.J.A.C. 7:14A-8.5(b)5.

(b) Design requirements are as follows:

1. When required to protect against accumulation of fine particles that would impair the proper functioning of the seepage pit, a multiple compartment septic tank shall be designed and constructed in accordance with N.J.A.C. 7:9A-8.2.

2. The percolating area shall be the total outside surface area of the seepage pit lining below the inlet and exclusive of any soil horizons with a percolation rate slower than 40 minutes per inch. The bottom of the seepage pit shall not be counted as part of the percolating area. The minimum percolating area shall be determined from the following table based upon the maximum daily volume of discharge and a weighted average of the percolation or permeability rates of all soil layers exposed in the sidewalls. In no case, however, shall the percolating area be less than 110 square feet.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(i) The owner or operator shall determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular ground water monitoring program that applies to the sanitary landfill, as determined under N.J.A.C. 7:14A-9.7(a) or 9.8(a).

1. In determining whether a statistically significant increase has occurred, the owner or operator shall compare the ground water quality of each parameter or constituent at each monitoring well designated pursuant to N.J.A.C. 7:14A-9.3(a)2 to the background value of that constituent, according to the statistical procedures and performance standards specified at (g) and (h) above.

2. Within a reasonable period of time after completing sampling and analysis, not to exceed 90 days unless otherwise approved by the Department in writing, the owner or operator shall determine whether there has been a statistically significant increase over background at each monitoring well.

7:14A-9.6 Relevant point of compliance

(a) The relevant point of compliance for a MSWLF shall be no more than 150 meters from the actual disposal area and shall be located on land owned by the owner of the sanitary landfill. In determining the relevant point of compliance, the Department shall consider the following factors:

1. The hydrogeologic characteristics of the facility and the surrounding land;
2. The volume and physical and chemical characteristics of the leachate;
3. The quantity, quality and direction of flow of ground water;
4. The proximity and withdrawal rate of the ground water users;
5. The availability of alternative drinking water supplies; and
6. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water, and whether the ground water is currently used or reasonably expected to be used for drinking water.

(b) The relevant point of compliance for sanitary landfills that are not MSWLFs shall be the sanitary landfill property boundary, but when possible, shall be no more than 150 meters from the actual disposal area within the "set back" as defined in N.J.A.C. 7:26-1.6.

7:14A-9.7 Leak detection monitoring program

(a) Leak detection monitoring is required at sanitary landfills at all ground water monitoring wells installed as part of a ground water monitoring system established pursu-

ant to N.J.A.C. 7:14A-9.3(a)1 and 2. At a minimum, a detection monitoring program shall include the monitoring for the constituents listed in Appendix A to this subchapter, incorporated herein by reference.

1. The Department shall remove any of the Appendix A monitoring parameters for a sanitary landfill if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the sanitary landfill unit.

2. The Department will establish an alternative list of inorganic indicator parameters for a sanitary landfill, in lieu of some or all of the heavy metals (constituents 1 through 15 in Appendix A to this subchapter), if the alternative parameters provide a reliable indication of inorganic releases from the sanitary landfill to the ground water. In determining alternative parameters, the Department shall consider the following factors:

- i. The types, quantities, and concentrations of constituents in wastes managed at the sanitary landfill;
- ii. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the sanitary landfill;
- iii. The detectability of indicator parameters, waste constituents and reaction products in the ground water; and
- iv. The concentration or values and coefficients of variation of monitoring parameters or constituents in the ground water background.

(b) The monitoring frequency for all constituents listed in Appendix A to this subchapter, or in the alternative list approved in accordance with (a)2 above, shall be at least semiannual during the active life of the facility (including closure) and the post closure period. A minimum of four independent samples from each well (background and downgradient) shall be collected and analyzed for the Appendix A constituents, or the alternative list approved in accordance with (a)2 above during the first semiannual sampling event. At least one sample from each well (background and downgradient) shall be collected and analyzed during subsequent semiannual sampling events. The Department will specify an appropriate alternative frequency for repeated sampling and analysis for Appendix A constituents, or the alternative list approved in accordance with (a)2 above during the active life (including closure) and the post closure care period. The alternative frequency during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the following factors:

1. The lithology of the aquifer and unsaturated zone;
2. The hydraulic conductivity of the aquifer and unsaturated zone;
3. The ground water flow rates;
4. The minimum distance between upgradient edge of the sanitary landfill and downgradient monitoring well screen (minimum distance of travel), and

5. The resource value of the aquifer.

(c) If the owner or operator of a sanitary landfill determines, pursuant to N.J.A.C. 7:14A-9.5(g), that there is a statistically significant increase over background for one or more of the constituents listed in Appendix A-Part A to this subchapter or in the alternative list approved in accordance with (a)2 above, at any monitoring well at the boundary specified under N.J.A.C. 7:14A-9.3(a)2, the owner or operator shall:

1. Within 14 days of this finding, place a notice in the records maintained by the facility indicating which constituents have shown statistically significant changes from background levels, and notify the Department that this notice was placed in the operating record; and
2. Establish an assessment monitoring program meeting the requirements of N.J.A.C. 7:14A-9.8 within 90 days except as provided at (d) below.

(d) The owner or operator may demonstrate that a source other than a sanitary landfill caused the contamination or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in ground water quality. A report documenting this demonstration shall be certified by a qualified ground water scientist or approved by the Department and be placed in the records maintained by the facility. If a successful demonstration is made and documented the owner or operator may continue detection monitoring as specified in this section. If, after 90 days, a successful demonstration is not made, the owner or operator shall initiate an assessment monitoring program as required in N.J.A.C. 7:14A-9.8.

7:14A-9.8 Assessment monitoring program

(a) Assessment monitoring is required whenever a statistically significant increase over background has been detected for one or more of the constituents listed in Appendix A to this subchapter or in the alternative list established in accordance with N.J.A.C. 7:14A-9.7(a)2.

(b) Within 90 days of initiating an assessment monitoring program, and annually thereafter, the owner or operator shall sample and analyze the ground water for all constituents identified in 40 C.F.R. 258 Appendix II. A minimum of one sample from each downgradient well shall be collected and analyzed during each sampling event. For any constituent detected in the downgradient wells as a result of the complete 40 C.F.R. 258 Appendix II analysis a minimum of four independent samples from each well (background and downgradient) shall be collected and analyzed to establish background for the constituents. The Department will specify an appropriate subset of wells to be sampled and analyzed for 40 C.F.R. 258 Appendix II constituents during assessment monitoring. The Department will remove any of the 40 C.F.R. 258 Appendix II monitoring parameters for a sanitary landfill if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste contained in the unit.

(c) The Department will specify an appropriate alternate frequency for repeated sampling and analysis for the full set of 40 C.F.R. 258 Appendix II constituents required to be monitored pursuant to (b) above, during the active life (including closure) and post closure care of the unit based on the following factors:

1. The lithology of the aquifer and unsaturated zone;
2. The hydraulic conductivity of the aquifer and unsaturated zone;
3. The ground water flow rate;
4. The minimum distance between upgradient edge of the sanitary landfill and downgradient monitoring well screen (minimum distance of travel);
5. The resource value of the aquifer; and
6. The nature (fate and transport) of any constituents detected.

(d) After obtaining the results from the initial or subsequent sampling required pursuant to (b) above, the owner or operator shall:

1. Within 14 days, place a notice in the records maintained by the facility identifying the 40 C.F.R. 258 Appendix II constituents that have been detected and notify the Department that this notice has been placed in the records maintained by the facility;
2. Within 90 days, and on at least a semiannual basis thereafter, resample all wells installed as part of the ground water monitoring system established pursuant to N.J.A.C. 7:14A-9.3(a) and conduct analyses for all constituents in Appendix A to this subchapter or in the alternative list established pursuant to N.J.A.C. 7:14A-9.7(a)2, and for those constituents in 40 C.F.R. 258 Appendix II that are detected in response to (b) above and record their concentrations in the records maintained by the facility. At least one sample from each well (background and downgradient) shall be collected and analyzed during these sampling events. The Department will specify an alternative monitoring frequency during the active life (including closure) and the post closure period for the constituents referred to in this paragraph. The alternative frequency for Appendix A constituents or the alternative list established pursuant to N.J.A.C. 7:14A-9.7(a)2 during the active life (including closure) shall be no less than annual. The alternative frequency shall be based on consideration of the factors specified at (c) above;
3. Establish background concentrations for any constituents detected pursuant to (b) or (d) above; and
4. Establish ground water protection standards for all constituents detected pursuant to (b) or (d) above. The ground water protection standards shall be established in accordance with (h) below, or when available, shall be the Ground Water Quality Standards set forth in N.J.A.C. 7:9-6.

(e) If the concentrations of all 40 C.F.R. 258 Appendix II constituents are shown to be at or below background values, using the statistical procedures set forth at N.J.A.C. 7:14A-9.5(g), for two consecutive sampling events, the owner or operator shall notify the Department of this finding and may resume detection monitoring pursuant to N.J.A.C. 7:14A-9.7.

(f) If the concentrations of any 40 C.F.R. 258 Appendix II constituents are above background values, but all concentrations are below the ground water protection standard established pursuant to (h) below using the statistical procedures in N.J.A.C. 7:14A-9.5(g), the owner or operator shall continue assessment monitoring in accordance with this section.

(g) If one or more 40 C.F.R. 258 Appendix II constituents are detected at statistically significant levels above the ground water protection standards established pursuant to (d)4 above in any sampling event, the owner or operator shall within 14 days of this finding, place a notice in the records maintained by the facility identifying the 40 C.F.R. 258 Appendix II constituents that have exceeded the ground water protection standard and notify the Department and all appropriate local government officials that the notice has been placed in said records.

1. The owner or operator shall also:

i. Characterize the nature and extent of the release by installing additional monitoring wells as necessary;

ii. Install at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sample this well in accordance with (d)(2) above;

iii. Notify all persons who own the land or reside on the land that directly overlies any part of the plume of contamination if contaminants have migrated offsite as indicated by sampling of wells in accordance with this subsection; and

iv. Initiate an assessment of corrective measures as required by N.J.A.C. 7:14A-9.9 within 90 days; or

2. The owner or operator may demonstrate that a source other than a sanitary landfill unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, or natural variation in ground water quality. A report documenting this demonstration shall be certified by a qualified ground water scientist or approved by the Department and placed in the records maintained by the facility. If a successful demonstration is made, the owner or operator shall continue monitoring in accordance with the assessment monitoring program established pursuant to this section, and may resume to detection monitoring if the 40 C.F.R. 258 Appendix II constituents are at or below background as specified at (e) above. Until a successful demonstration is made, the owner or operator shall comply with (g) above, including initiating an assessment of corrective measures.

(h) Ground water protection standards for each 40 C.F.R. 258 Appendix II parameter shall be determined according to the criteria in N.J.A.C. 7:9-6 or in accordance with 40 C.F.R. 258.55(h) through (i), whichever is more stringent.

Administrative correction.

See: 29 N.J.R. 3822(a).

In (d)2, in the first sentence, substituted "Appendix A to this subchapter" for "40 CFR 258 Appendix II", and in the fourth sentence, substituted "Appendix A" for "40 CFR 258 Appendix II"; and in (g)2, substituted "40 CFR 258 Appendix II" for "Appendix A".

7:14A-9.9 Assessment of corrective measures.

(a) Within 90 days of finding that any of the constituents listed in 40 C.F.R. 258 Appendix II have been detected at a statistically significant level exceeding the ground water protection standards under N.J.A.C. 7:14A-9.8(h), the owner or operator shall initiate an assessment of corrective measures. Such assessment shall be completed within a reasonable period of time, not to exceed 90 days unless otherwise approved by the Department in writing.

(b) The owner or operator shall continue to monitor in accordance with the assessment monitoring program specified in N.J.A.C. 7:14A-9.8.

(c) The assessment shall include an analysis of the effectiveness of potential corrective measures in meeting all of the requirements and objectives of the remedy as described under N.J.A.C. 7:14A-9.10, addressing at least the following:

1. The performance, reliability, ease of implementation, and potential impacts of appropriate potential remedies, including safety impacts, cross-media impacts, and control of exposure to any residual contamination;

2. The time required to begin and complete the remedy;

3. The costs of remedy implementation; and

4. The institutional requirements such as State or local permit requirements or other environmental or public health requirements that may substantially affect implementation of the remedy(s).

(d) The owner or operator shall discuss the results of the corrective measures assessment, prior to the selection of remedy, in a public meeting with interested and affected parties.

7:14A-9.10 Selection of remedy

(a) Based on the results of the assessment of corrective measures conducted pursuant to N.J.A.C. 7:14A-9.9, the owner or operator shall select a remedy that, at a minimum, meets the standards listed at (b) below. The owner or

operator shall notify the Department, within 14 days of selecting a remedy, that a report describing the selected remedy has been placed in the records maintained by the facility and how it meets the standards in (b) below.

(b) Remedies shall:

1. Be protective of human health and the environment;
2. Attain the ground water protection standard specified pursuant to N.J.A.C. 7:14A-9.8(h);
3. Control the source(s) of releases so as to reduce or eliminate, to the maximum extent practicable, further releases of 40 C.F.R. 258 Appendix II constituents into the environment that may pose a threat to human health or the environment;
4. Comply with standards for management of wastes specified in N.J.A.C. 7:14A-9.11(d); and
5. Be implemented in accordance with provisions in the solid waste facility permit, or the closure plan approval issued in accordance with N.J.A.C. 7:26.

(c) In selecting a remedy that meets the standards of (b) above, the owner or operator shall consider the following factors:

1. The long and short term effectiveness and protectiveness of the potential remedy(s), along with the degree of certainty that the remedy will prove successful based on:
 - i. The magnitude of reduction of existing risks;
 - ii. The magnitude of residual risks in terms of likelihood of other releases due to waste remaining following implementation of a remedy;
 - iii. The type and degree of long term management required, including monitoring, operation, and maintenance;
 - iv. The short term risks that might be posed to the community, workers, or the environment during implementation of such a remedy, including potential threat to human health and the environment associated with excavation, transportation, and redisposal or containment;
 - v. The time until full protection is achieved;
 - vi. The potential for exposure of humans and environmental receptors to remaining wastes, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal, or containment;
 - vii. The long term reliability of the engineering and institutional controls; and
 - viii. The potential need for replacement of the remedy;

2. The effectiveness of the remedy in controlling the source to reduce further releases based on:

- i. The extent to which containment practices will reduce further releases; and
 - ii. The extent to which treatment technologies may be used;
3. The ease or difficulty of implementing a potential remedy(s) based on:
- i. The degree of difficulty associated with constructing the technology;
 - ii. The expected operational reliability of the technology;
 - iii. The need to coordinate with and obtain necessary approvals and permits from other agencies;
 - iv. The availability of necessary equipment and specialists; and
 - v. The available capacity and location of needed treatment, storage, and disposal services;
4. The practicable capability of the owner or operator, including a consideration of the technical and economic capability; and
5. The degree to which community concerns are addressed by a potential remedy(s).

(d) The owner or operator shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities. Such a schedule shall specify the initiation of remedial activities within a reasonable period of time, not to exceed 90 days unless otherwise approved by the Department in writing, taking into consideration the factors set forth in (d)1 through 8 below:

1. The extent and nature of contamination;
2. The practical capabilities of remedial technologies in achieving compliance with ground water protection standards established under N.J.A.C. 7:14A-9.8(g) or (h) and other objectives of the remedy;
3. The availability of treatment or disposal capacity for wastes managed during implementation of the remedy;
4. The desirability of utilizing technologies that are not currently available, but which may offer significant advantages over already available technologies in terms of effectiveness, reliability, safety, or ability to achieve remedial objectives;
5. The potential risks to human health and the environment from exposure to contamination prior to completion of the remedy;
6. The resource value of the aquifer including:
 - i. Current and future uses;

7:14A-10.2 Applicability

(a) The requirements in this subchapter apply to:

1. Hazardous waste facilities as defined by N.J.A.C. 7:26G-8 through 7:26G-9.

(b) All hazardous waste facilities shall obtain a NJPDES-DGW permit to conduct ground water monitoring and corrective action as specified in this subchapter, unless exempted pursuant to N.J.A.C. 7:14A-2.5(a)9 or 10.

Amended by R.2005 d.222, effective July 5, 2005.

See: 37 N.J.R. 405(a), 37 N.J.R. 2499(a).

Rewrote (b).

7:14A-10.3 Exemptions

(a) The owner or operator of a hazardous waste facility unit or units is not subject to regulation for releases into the uppermost aquifer under this subchapter if:

1. The owner or operator is exempt pursuant to the rules governing hazardous waste facilities in N.J.A.C. 7:26G-8 through 9.

7:14A-10.4 General ground water monitoring well requirements

(a) In addition to monitoring requirements specified elsewhere in this subchapter, all of the following requirements apply to the installation, maintenance, sampling and closure of monitoring wells.

1. Ground water monitoring wells shall be constructed in accordance with the edition of the Department's "Field Sampling Procedures Manual" applicable at the time of well construction, an alternate method approved by the Department, or as set forth in the NJPDES-DGW permit.

2. A well permit, as required by N.J.S.A. 58:4A-1 et seq., shall be obtained prior to the installation of any ground water monitoring well. A clear and accurate record or base map providing the monitoring well location, depth, elevation and achievable pumping rate shall be kept at the facility by the owner or operator and made available to the Department.

3. Ground water sampling and analysis shall be conducted in accordance with the edition of the Department's "Field Sampling Procedures Manual" applicable at the time of sampling, an alternate method approved by the Department, or as set forth in the NJPDES-DGW permit.

4. Wells shall be capped to prevent precipitation from entering the well bore hole or introduction of extraneous material and substances into the well which might invalidate analytical results. All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well bore hole. Wells shall be screened and packed with gravel or sand where necessary to enable sample collection at depths where appropriate. The annular space (that is, the space between the bore hole and

well casing) above the sampling depth shall be sealed with a suitable material (for example, cement grout or bentonite slurry) to prevent contamination of samples and ground water.

5. The elevation of the top of the well casing for each ground water monitoring well shall be established and said elevation shall be permanently marked on the well casing. The elevation established shall be in relation to the New Jersey Geodetic Control Survey datum. Each monitoring well casing shall be permanently marked with a number to be assigned or approved by the Department. This will typically be the well permit number issued with the permit to construct the well.

7:14A-10.5 Ground water monitoring program requirements for hazardous waste facilities

(a) Any owner or operator subject to this subchapter shall conduct a monitoring program as follows:

1. Whenever any hazardous constituent pursuant N.J.A.C. 7:14A-10.7 from a hazardous waste facility unit is detected at a compliance point established pursuant to N.J.A.C. 7:14A-10.9, the owner or operator shall institute a compliance monitoring program under N.J.A.C. 7:14A-10.13. "Detected" is defined as statistically significant evidence of contamination as described in N.J.A.C. 7:14A-10.12(f);

2. Whenever the ground water protection standard under N.J.A.C. 7:14A-10.6 is exceeded, the owner or operator shall institute a corrective action program under N.J.A.C. 7:14A-10.14. "Exceeded" is defined as statistically significant evidence of increased contamination as described in N.J.A.C. 7:14A-10.13(d);

- i. Whenever hazardous constituents under N.J.A.C. 7:14A-10.7 from a hazardous waste facility unit exceed concentration limits under N.J.A.C. 7:14A-10.8 in ground water between the relevant point of compliance under N.J.A.C. 7:14A-10.9 and the downgradient hazardous waste facility property boundary, the owner or operator shall institute a corrective action program under N.J.A.C. 7:14A-10.14; or

- ii. In all other cases, the owner or operator shall institute a detection monitoring program under N.J.A.C. 7:14A-10.11.

(b) The Department shall specify in the NJPDES-DGW permit the specific elements of the monitoring and response program. The Department may include one or more of the programs identified in (a) above in the NJPDES-DGW permit as may be necessary to protect human health and the environment and shall specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to institute a particular program, the Department shall consider the potential adverse effects on human health and the environment that might occur before final administrative action on

a permit modification application to incorporate such a program could be taken.

7:14A-10.6 Ground water protection standard

The owner or operator shall comply with conditions specified in the NJPDES-DGW permit that are designed to ensure that hazardous constituents under N.J.A.C. 7:14A-10.7 detected in the ground water from a hazardous waste facility unit do not exceed the concentration limits under N.J.A.C. 7:9-6 or 7:14A-10.8 in the uppermost aquifer underlying the hazardous waste facility area beyond the relevant point of compliance under N.J.A.C. 7:14A-10.9 during the compliance period under N.J.A.C. 7:14A-10.10. The Department shall establish this ground water protection standard in the NJPDES-DGW permit when hazardous constituents have been detected in the ground water.

7:14A-10.7 Hazardous constituents

(a) The Department shall specify in the NJPDES-DGW permit the hazardous constituents to which the ground water protection standard of N.J.A.C. 7:14A-10.6 applies. Hazardous constituents are constituents identified in 40 CFR Part 261 Appendix VIII that have been detected in ground water in the uppermost aquifer underlying a hazardous waste facility unit and that are reasonably expected to be in or derived from waste contained in a hazardous waste facility unit, unless the Department has excluded them under (b) below.

(b) The Department shall exclude a 40 CFR Part 261 Appendix VIII constituent from the list of hazardous constituents specified in the NJPDES-DGW permit if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment based on the following:

1. Potential adverse effects on ground water quality, considering:
 - i. The physical and chemical characteristics of the waste in the hazardous waste facility unit, including its potential for migration;
 - ii. The hydrogeological characteristics of the facility and surrounding land;
 - iii. The quantity of ground water and the direction of ground water flow;
 - iv. The proximity and withdrawal rates of ground water users;
 - v. The current and future uses of ground water in the area;
 - vi. The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water quality;
 - vii. The potential for health risks caused by human exposure to waste constituents;

viii. The potential damage to wild life, crops, vegetation, and physical structures caused by exposure to waste constituents; and

ix. The persistence and permanence of the potential adverse effects;

2. Potential adverse effects on hydraulically connected surface water quality, considering:

i. The volume and physical and chemical characteristics of the waste in the hazardous waste facility unit;

ii. The hydrogeological characteristics of the facility and surrounding land;

iii. The quantity and quality of ground water, and the direction of ground water flow;

iv. The patterns of rainfall in the region;

v. The proximity of the hazardous waste facility unit to surface waters;

vi. The current and future uses of surface waters in the area and any water quality standards established for those surface waters;

vii. The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

viii. The potential for health risks caused by human exposure to waste constituents;

ix. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

x. The persistence and permanence of the potential adverse effects.

(c) In making any determination under (b) above, the Department shall assess any identified underground sources of drinking water.

7:14A-10.8 Concentration limits

(a) The Department shall specify in the NJPDES-DGW permit concentration limits in the ground water for hazardous constituents established under N.J.A.C. 7:14A-10.7. The concentration of a hazardous constituent:

1. Shall not exceed the background level of that constituent in the ground water at the time that limit is specified in the permit;

2. For any of the constituents listed in (a)2i below, shall not exceed the ground water quality criteria of N.J.A.C. 7:9-6, or the 40 CFR 264.93 Table 1 concentration, whichever is more stringent, if the background level of the constituent is below the more stringent of the relevant concentration limits for those parameters; or

i. The following constituents shall be evaluated in accordance with (a)2 above: arsenic, silver, barium, endrin, cadmium, lindane, chromium, methoxychlor,

lead, toxaphene, mercury, 2, 4-D, selenium, 2, 4, 5-TP
Silvex; or

3. Shall not exceed an alternate limit established by the Department under (b) below.

(b) The Department shall establish an alternate concentration limit for a hazardous constituent if it finds that the constituent shall not pose a substantial present or potential hazard to human health or the environment if such alternate concentration limit is not exceeded, based on the following:

1. Potential adverse effects on ground water quality, considering:

i. The physical and chemical characteristics of the waste in the hazardous waste facility unit, including its potential for migration;

ii. The hydrogeological characteristics of the facility and surrounding land;

iii. The quantity of ground water and the direction of ground water flow;

iv. The proximity and withdrawal rates of ground water users;

v. The current and future uses of ground water in the area;

vi. The existing quality of ground water, including other sources of contamination and their cumulative impact on the ground water quality;

vii. The potential for health risks caused by human exposure to waste constituents;

viii. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

ix. The persistence and permanence of the potential adverse effects;

2. Potential adverse effects on hydraulically connected surface water quality, considering:

i. The volume and physical and chemical characteristics of the waste in the hazardous waste facility unit;

ii. The hydrogeological characteristics of the facility and surrounding land;

iii. The quantity and quality of ground water, and the direction of ground water flow;

iv. The patterns of rainfall in the region;

v. The proximity of the hazardous waste facility unit to surface waters;

vi. The current and future uses of for those surface waters in the area and any water quality standards established for those surface waters;

vii. The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality;

viii. The potential for health risks caused by human exposure to waste constituents;

ix. The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

x. The persistence and permanence of the potential adverse effects.

(c) In making any determination under (b) above, the Department shall assess any identified underground sources of drinking water.

7:14A-10.9 Relevant point of compliance

(a) The Department shall specify in the NJPDES-DGW permit the relevant point of compliance at which the ground water protection standard of N.J.A.C. 7:14A-10.6 applies and at which monitoring shall be conducted. The relevant point of compliance is a vertical surface located at the hydraulically downgradient limit of the hazardous waste facility unit (unit) that extends down into the uppermost aquifer underlying the hazardous waste facility unit(s).

(b) The hazardous waste management unit is the limit projected in the horizontal plane of the area on which hazardous waste shall be placed during the active life of a hazardous waste facility unit.

1. The hazardous waste management unit includes horizontal space taken up by any liner, dike, or other barrier designed to contain hazardous waste in a hazardous waste facility unit.

2. If the facility contains more than one hazardous waste facility unit, the hazardous waste management unit is described by an imaginary line circumscribing the several hazardous waste facility units.

(c) Unless otherwise determined by the Department, the relevant point of compliance specified shall be no more than 150 meters from the hazardous waste management unit boundary and shall be located on land owned by the owner of the hazardous waste facility. In determining the relevant point of compliance, the Department shall consider the following factors:

1. The hydrogeologic characteristics of the facility and the surrounding land;

2. The volume and physical and chemical characteristics of the leachate;

3. The quantity, quality and direction of flow of ground water;

4. The proximity and withdrawal rate of the ground water users;

5. The availability of alternative drinking water supplies; and

6. The existing quality of the ground water, including other sources of contamination and their cumulative impacts on the ground water, and whether the ground water is currently used or reasonably expected to be used for drinking water.

7:14A-10.10 Compliance period

(a) The Department shall specify in the NJPDES-DGW permit the compliance period during which the ground water protection standard of N.J.A.C. 7:14A-10.6 applies. The compliance period is the number of years equal to the active life of the hazardous waste management unit in N.J.A.C. 7:14A-10.9(b) (including any hazardous waste management activity prior to permitting and the closure period.)

(b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of N.J.A.C. 7:14A-10.13.

(c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in (a) above, the compliance period is extended until the owner or operator can demonstrate that the ground water protection standard of N.J.A.C. 7:14A-10.6 has not been exceeded for a period of three consecutive years.

7:14A-10.11 Ground water monitoring system performance standards

(a) The owner or operator shall comply with the following requirements for any ground water monitoring program developed to satisfy N.J.A.C. 7:14A-10.12, 10.13 or 10.14. A ground water monitoring system shall consist of a sufficient number of wells, installed at appropriate locations and depths to yield ground water samples from the upper most aquifer that:

1. Represent the quality of background water that has not been affected by leakage from a hazardous waste facility unit.

i. A determination of background ground water quality may include sampling of wells that are not hydraulically upgradient of the hazardous waste management area as described at N.J.A.C. 7:14A-10.9(b), where:

(1) Hydrogeologic conditions do not allow the owner or operator to determine what wells are hydraulically upgradient; and

(2) Sampling at other wells will provide an indication of background ground water quality that is representative or more representative than that provided by the upgradient wells;

2. Represent the quality of ground water passing the relevant point of compliance; and

3. Allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the hazardous waste management area to the uppermost aquifer.

(b) If a facility contains more than one hazardous waste facility unit, separate ground water monitoring systems are not required for each hazardous waste facility unit provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the relevant point of compliance of hazardous constituents from the hazardous waste facility units that have entered the ground water in the uppermost aquifer.

(c) Monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing shall be screened or perforated and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space (that is, the space between the bore hole and well casing) above the sampling depth shall be sealed to prevent contamination of samples and the ground water. In addition to these general well construction standards, all monitoring wells shall be constructed in accordance with the edition of the Department's "Field Sampling Procedures Manual" applicable at the time of construction, an alternate method approved by the Department, or as set forth in the NJPDES-DGW permit.

(d) The ground water monitoring system shall include sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of ground water quality below the hazardous waste management area as described at N.J.A.C. 7:14A-10.9(b). At a minimum, the program shall include procedures and techniques for:

1. Sample collection;
2. Sample preservation and shipment;
3. Analytical procedures; and
4. Chain of custody control.

(e) The ground water monitoring system shall include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples.

(f) The ground water monitoring system shall include a determination of the ground water surface elevation each time ground water is sampled.

(g) In detection monitoring or, where appropriate, in compliance monitoring, data on each hazardous constituent specified in the permit shall be collected from background wells and wells at the compliance point(s). The number and kinds of samples collected to establish background shall be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size shall be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected. The owner or operator shall determine an appropriate sampling procedure and interval for each hazardous constituent listed in the NJPDES-DGW permit which shall be specified in the NJPDES-DGW permit upon approval by the Department. This sampling procedure shall be:

1. A sequence of at least four samples, taken at an interval that ensures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

2. An alternate sampling procedure approved by the Department.

(h) The owner or operator shall specify one of the following statistical methods to be used in evaluating ground water monitoring data for each hazardous constituent which, upon approval by the Department, shall be specified in the NJPDES-DGW permit. The statistical test shall be conducted separately for each hazardous constituent in each well. Where practical quantification limits (PQLs) are used in any of the following statistical procedures to comply with (i)5 below, the PQL shall be approved by the Department. Use of any of the following statistical methods shall be protective of human health and the environment and shall comply with the performance standards in (i) below.

1. A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between the mean and the background mean levels for each compliance well for each constituent;

2. An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method shall include estimation and testing of the contrasts between the median and the background median levels for each compliance well for each constituent;

3. A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit;

4. A control chart approach that gives control limits for each constituent; or

5. Another statistical test method approved by the Department.

(i) Any statistical method chosen pursuant to (h) above shall comply with the following performance standards, as appropriate:

1. The statistical method used to evaluate ground water monitoring data shall be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data must be transformed or a distribution free theory test must be used. If the distribution for the constituents differ, more than one statistical method shall be needed.

2. If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentration or a ground water protection standard, the test shall be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparison procedure is used, the Type I experimentwise error rate for each testing period shall be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparison shall be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

3. If a control chart approach is used to evaluate ground water monitoring data, the specific type of control chart and its associated parameter values shall be proposed by the owner or operator and approved by the Department if it finds it to be protective of human health and the environment.

4. If a tolerance interval or a prediction interval is used to evaluate ground water monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval shall contain, shall be proposed by the owner or operator and approved by the Department if it finds these parameters to be protective of human health and the environment. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

5. The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantification limit (PQL) approved by the Department under (h) above that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6. If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

(j) Ground water monitoring data collected in accordance with (g) above, including actual levels of constituents, shall be maintained in the permanent records maintained by the facility. The Department shall specify in the permit when the data shall be submitted for review.

7:14A-10.12 Leak detection monitoring program

(a) An owner or operator required to establish a leak detection monitoring program under this subchapter shall monitor for indicator parameters (for example, specific conductance, total organic carbon, or total organic halogen), or waste constituents or reaction products that provide a reliable indication of the presence of hazardous constituents in ground water. The Department shall specify the parame-

ters or constituents to be monitored in the NJPDES-DGW permit, based on the following factors:

1. The types, quantities, and concentrations of constituents in wastes managed at the hazardous waste facility unit;
2. The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the hazardous waste facility unit;
3. The detectability of indicator parameters, waste constituents, and reaction products in ground water; and
4. The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the ground water background.

(b) The owner or operator shall install a ground water monitoring system at the relevant point of compliance specified under N.J.A.C. 7:14A-10.9. The ground water monitoring system shall comply with N.J.A.C. 7:14A-10.11(a), (b) and (c).

(c) The owner or operator shall conduct a ground water monitoring system for each chemical parameter and hazardous constituent specified in the permit pursuant to (a) above in accordance with N.J.A.C. 7:14A-10.11(g). The owner or operator shall maintain a complete and continuous record of ground water analytical data as measured and in a form necessary for the determination of statistical significance under N.J.A.C. 7:14A-10.11(h).

(d) The Department shall specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified pursuant to (a) above in accordance with N.J.A.C. 7:14A-10.11(g). A sequence of at least four samples from each well (background and compliance wells) shall be collected at least semiannually during leak detection monitoring.

(e) The owner or operator shall determine the ground water flow rate and direction in the uppermost aquifer at least annually.

(f) The owner or operator shall determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified pursuant to (a) above at a frequency specified pursuant to (d) above.

1. In determining whether statistically significant evidence of contamination exists, the owner or operator shall use the method(s) specified under N.J.A.C. 7:14A-10.11(h). These method(s) shall compare data collected at the compliance point(s) to the background ground water quality data.

2. The owner or operator shall determine whether there is statistically significant evidence of contamination at each monitoring well at the relevant point of compliance within a reasonable period of time after completion of sampling. The Department shall specify in the NJPDES-DGW permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(g) If the owner or operator determines pursuant to (f) above that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to (a) above at any monitoring well at the relevant point of compliance, the owner or operator shall:

1. Notify the Department of this finding in writing within seven days. The notification shall indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination;

2. Immediately sample the ground water in all monitoring wells and determine whether constituents in the list of 40 C.F.R. Part 264 Appendix IX are present, and if so, in what concentration;

3. For any 40 C.F.R. Part 264 Appendix IX compounds found in the analysis pursuant to (g)2 above, the owner or operator may resample within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents shall form the basis for compliance monitoring. If the owner or operator does not resample for the compounds found pursuant to (g)2 above, the hazardous constituents found during this initial 40 C.F.R. Part 264 Appendix IX analysis shall form the basis for compliance monitoring;

4. Within 90 days after statistically significant evidence for contamination is identified, submit to the Department an application for a permit modification to establish a compliance monitoring program meeting the requirements of N.J.A.C. 7:14A-10.13. The application shall include the following information:

- i. Identification of the concentration or any 40 C.F.R. Part 264 Appendix IX constituent detected in the ground water at each monitoring well at the compliance point;

- ii. Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of N.J.A.C. 7:14A-10.13;

- iii. Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of N.J.A.C. 7:14A-10.13; and

- iv. For each hazardous constituent detected at the relevant compliance point, a proposed concentration limit under N.J.A.C. 7:14A-10.8(a) 1 or 2, or a notice of intent to seek an alternate concentration limit under N.J.A.C. 7:14A-10.8(b);
5. Within 180 days after statistically significant evidence for contamination is identified, submit to the Department:
- All data necessary to justify an alternate concentration limit sought under N.J.A.C. 7:14A-10.8(b); and
 - Engineering feasibility plan for a corrective action program necessary to meet the requirement of N.J.A.C. 7:14A-10.14, unless:
 - All hazardous constituents identified under (g)2 above are listed in N.J.A.C. 7:14A-10.8(a)2i and their concentrations do not exceed the ground water quality criteria of N.J.A.C. 7:9-6, or the 40 C.F.R. 264.94 Table 1 concentration, whichever is more stringent; or
 - The owner or operator has sought an alternate concentration limit under N.J.A.C. 7:14A-10.8(b) for every hazardous constituent identified under (g)2 above; and
6. If the owner or operator determines, pursuant to (f) above, that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to (a) above at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than the owner/operator's hazardous waste facility unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. The owner operator may make a demonstration under this paragraph in addition to, or in lieu of, submitting a permit modification application under (g)4 above; however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in (g)4 above unless the demonstration made under this paragraph successfully shows that a source other than a hazardous waste facility unit caused the increase, or that the increase resulted from error in sampling or analysis. In making a demonstration under this paragraph, the owner or operator shall:
- Notify the Department in writing within seven days of determining statistically significant evidence of contamination at the relevant point of compliance that the owner or operator intends to make a demonstration under this paragraph;
 - Within 90 days after determining statistically significant evidence of contamination, submit a report to the Department which demonstrates that a source other than a hazardous waste facility unit caused the contamination or that the contamination resulted from error in sampling or analysis;
- Within 90 days after receipt by the Department of the report required in ii above, submit to the Department an application for a permit modification to make any appropriate changes to the leak detection monitoring program facility; and
 - Continue to monitor in accordance with the leak detection monitoring program established under this section.
- (h) If the owner or operator determines that the leak detection monitoring program no longer satisfies the requirements of this section, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the leak detection monitoring program.

7:14A-10.13 Compliance monitoring program

(a) The owner or operator required to establish a compliance monitoring program under this subchapter shall monitor the ground water at the relevant point(s) of compliance to determine whether hazardous waste facility units are in compliance with the ground water protection standard under N.J.A.C. 7:14A-10.6. The Department shall specify the ground water protection standard in the NJPDES-DGW permit, including:

- A list of the hazardous constituents identified under N.J.A.C. 7:14A-10.7;
- Concentration limits under N.J.A.C. 7:14A-10.8 for each of those hazardous constituents;
- The relevant point of compliance under N.J.A.C. 7:14A-10.9; and
- The compliance period under N.J.A.C. 7:14A-10.10.

(b) The owner or operator shall install a ground water monitoring system at the compliance point as specified under N.J.A.C. 7:14A-10.9. The ground water monitoring system shall comply with N.J.A.C. 7:14A-10.11(a), (b) and (c).

(c) The Department shall specify the sampling procedures and statistical methods appropriate for the specified hazardous constituents and the facility, consistent with N.J.A.C. 7:14A-10.11(g) and (h).

- The owner or operator shall conduct a sampling program for each chemical parameter or hazardous constituent in accordance with N.J.A.C. 7:14A-10.11(g).

- The owner or operator shall record ground water analytical data as measured and in a form necessary for the determination of statistical significance under N.J.A.C. 7:14A-10.11(h) for the compliance period of the facility.

(d) The owner or operator shall determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent

specified pursuant to (a) above at a frequency specified under (f) below.

1. In determining whether statistically significant evidence of increased contamination exists, the owner or operator shall use the method(s) specified under N.J.A.C. 7:14A-10.11(h). The methods(s) shall compare data collected at the compliance point(s) to a concentration limit developed pursuant to N.J.A.C. 7:14A-10.8.

2. The owner or operator shall determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of sampling. The Department shall specify that time period in the NJPDES-DGW permit, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of ground water samples.

(e) The owner or operator shall determine the ground water flow rate and direction in the uppermost aquifer at least annually.

(f) The Department shall specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with N.J.A.C. 7:14A-10.11(g). A sequence of at least four samples from each well (background and compliance wells) shall be collected at least semi-annually during the compliance period of the facility.

(g) The owner or operator shall analyze samples from all monitoring wells at the compliance point for all constituents contained in 40 C.F.R. Part 264 Appendix IX at least annually to determine whether additional hazardous constituents are present in the uppermost aquifer and, if so, at what concentration pursuant to procedures in N.J.A.C. 7:14A-10.12(f). If the owner or operator finds 40 C.F.R. Part 264 Appendix IX constituents in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month and repeat the 40 C.F.R. 264 Appendix IX analysis. If the second analysis confirm the presence of new constituents, the owner or operator shall report the concentration of these additional constituents to the Department within seven days after the completion of the second analysis and add them to the list of constituents to be sampled for. If the owner or operator chooses not to resample, then the owner or operator shall report the concentrations of these additional constituents to the Department within seven days after completion of the initial analysis and add them to the list of constituents to be sampled for.

(h) If the owner or operator determines pursuant to (d) above that any concentration limits under N.J.A.C. 7:14A-10.8 are being exceeded at any monitoring well at the point of compliance, the owner or operator shall:

1. Notify the Department of this finding in writing within seven days. The notification shall indicate what concentration limits have been exceeded; and

2. Submit to the Department an application for a permit modification to establish a corrective action program meeting the requirements of N.J.A.C. 7:14A-10.14 within 180 days after determining that any concentration limits have been exceeded, or within 90 days after said determination if an engineering feasibility study has been previously submitted to the Department under N.J.A.C. 7:14A-10.12(h)5. The application shall, at a minimum, include the following information:

i. A detailed description of corrective actions that shall achieve compliance with the ground water protection standard specified pursuant to (a) above; and

ii. A plan for a ground water monitoring program that shall demonstrate the effectiveness of the corrective action. Such a ground water monitoring program may be based on a compliance monitoring program developed to meet the requirements of this section.

(i) If the owner or operator determines, pursuant to (d) above, that the ground water concentration limits under this section are being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than the owner/operator's hazardous waste facility unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making a demonstration under this paragraph, the owner or operator shall:

1. Notify the Department in writing within seven days that the owner or operator intends to make a demonstration under this paragraph;

2. Within 90 days of determining that the ground water concentration limits under this section are being exceeded, submit a report to the Department which demonstrates that a source other than a hazardous waste facility unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

3. Within 90 days after receipt by the Department of the report required in (i)2 above, submit to the Department an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

4. Continue to monitor in accord with the compliance monitoring program established under this section.

(j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this section, the owner or operator shall, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

7:14A-10.14 Corrective action program

(a) The owner or operator required to establish a compliance monitoring program under this subchapter shall take corrective action to ensure that hazardous waste facility units are in compliance with the ground water protection standards of N.J.A.C. 7:9-6. The Department shall specify the ground water protection standard in the NJPDES-DGW permit, including:

1. A list of the hazardous constituents identified under N.J.A.C. 7:14A-10.7;
2. Concentration limits under N.J.A.C. 7:14A-10.8 for each of those hazardous constituents;
3. The relevant point of compliance under N.J.A.C. 7:14A-10.9; and
4. The compliance period under N.J.A.C. 7:14A-10.10.

(b) The owner or operator shall implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit shall specify the specific measures that shall be taken.

(c) The owner or operator shall begin corrective action within a reasonable time period after the ground water protection standard is exceeded. The Department shall specify that time period in the NJPDES-DGW permit. If a NJPDES-DGW permit includes a corrective action program in addition to a compliance monitoring program, the permit shall specify when the corrective action will begin and such a requirement will operate in lieu of N.J.A.C. 7:14A-10.13(i)2.

(d) In conjunction with a corrective action program, the owner or operator shall establish and implement a ground water monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program under N.J.A.C. 7:14A-10.13 and shall be as effective as that program in determining compliance with the ground water protection standard under N.J.A.C. 7:14A-10.6 and in determining the success of a corrective action program under (e) below, where appropriate.

(e) In addition to the other requirements of this section, the owner or operator shall conduct a corrective action program to remove or treat in place any hazardous constituents under N.J.A.C. 7:14A-10.7 that exceed concentration limits under N.J.A.C. 7:14A-10.8 in ground water as specified in (e)1 and 2 below. Corrective action measures under this subsection shall be initiated and completed within a reasonable period of time, as specified in the NJPDES-DGW permit, considering the extent of contamination. Corrective action measures under this subsection may be terminated once the concentration of hazardous constituents under N.J.A.C. 7:14A-10.13 is reduced to levels below their respective concentration limits under N.J.A.C. 7:14A-10.8.

1. Between the compliance point under N.J.A.C. 7:14A-10.9 and the downgradient property boundary; and

2. Beyond the facility boundary where necessary to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the Department that, despite the owners or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner or operator is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied. Onsite measures to address such releases shall be determined on a case by case basis.

(f) The owner or operator shall continue corrective action measures during the compliance period to the extent necessary to ensure that the ground water protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, the owner or operator shall continue that corrective action for as long as necessary to achieve compliance with the ground water protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the hazardous waste facility area (including the closure period) if the owner or operator can demonstrate, based on data from the ground water monitoring program under (d) above that the ground water protection standard of N.J.A.C. 7:14A-10.6 has not been exceeded for a period of three consecutive years.

(g) The owner or operator shall report in writing to the Department on the effectiveness of the corrective action program. The owner or operator shall submit these reports semiannually.

(h) If the owner or operator determines that the corrective action program no longer satisfies the requirements if this section, the owner or operator shall, within 90 days after said determination, submit an application for a permit modification to make any appropriate changes to the program.

7:14A-10.15 Application requirements for NJPDES-DGW permits for hazardous waste facilities

Application requirements for hazardous waste facilities are the same as those listed in N.J.A.C. 7:14A-7.9.

7:14A-10.16 Application requirements for NJPDES-DGW permits for hazardous waste facilities with surface impoundments

Application requirements for hazardous waste facility surface impoundments shall be the same as those listed in N.J.A.C. 7:14A-7.10.

7:14A-10.17 Application requirements for NJPDES-DGW permits for hazardous waste facilities with land discharge by infiltration-percolation lagoons

Application requirements for hazardous waste facility land discharge by infiltration-percolation lagoons shall be the same as those listed in N.J.A.C. 7:14A-7.13.

7:14A-10.18 Application requirements for NJPDES-DGW permits for hazardous waste landfills

Application requirements for hazardous waste landfills shall be the same as the requirements for sanitary landfills as described in N.J.A.C. 7:14A-9.12.

SUBCHAPTER 11. PROCEDURES AND CONDITIONS APPLICABLE TO NJPDES-DSW PERMITS

Law Review and Journal Commentaries

Discharge Permit Rules Encourage Prevention. Robert J. Curley, Francis X. Journick, Jr., 135 N.J.L.J. No. 8, S14 (1993).

7:14A-11.1 Purpose and scope

(a) This subchapter sets forth specific conditions and procedures which are applicable only to DSW permits. N.J.A.C. 7:14A-24 and 25 set forth additional specific conditions and procedures which are applicable to DSW or DGW permits for stormwater discharges.

(b) The DSW program requires permits for the discharge of pollutants into surface waters of the State from any point source, stormwater discharge associated with industrial activity or small construction activity, and nonpoint sources regulated under N.J.A.C. 7:14A-2.5(d) or 24.2(a)7ii.

Amended by R.2004 d.47, effective February 2, 2004.
See: 35 N.J.R. 169(a), 35 N.J.R. 1331(a), 36 N.J.R. 813(a).
Rewrote the section.

Case Notes

Accidental discharge of oil from tanker warranted civil penalties. In re Oriental Republic of Uruguay, 1993, 821 F.Supp. 941.

Application of New Jersey Water Pollution Control Act; intentional or unintentional act. In re Oriental Republic of Uruguay, 1993, 821 F.Supp. 941.

Flow monitoring; requirement for surface water discharge permit. Public Interest Research Group of New Jersey v. Yates Industries, Inc., D.N.J.1991, 757 F.Supp. 438, reconsideration denied in part, granted in part 790 F.Supp. 511.

7:14A-11.2 Establishing DSW permit conditions

(a) In addition to the conditions established under N.J.A.C. 7:14A-6.3, the Department shall include in DSW permits one or more conditions which meet the following requirements, as applicable:

1. Pollutants for which the permittee is required to report noncompliance with an effluent limitation in accordance with N.J.A.C. 7:14A-6.10(a)1 shall be identified and listed in the permit. This list shall include any toxic pollutant or hazardous substance or another appropriate indicator specifically identified as the method to control a toxic pollutant or hazardous substance;

2. In addition to the monitoring requirements contained in N.J.A.C. 7:14A-6.5, to assure compliance with permit limitations, a permittee shall be required to monitor:

i. The mass, or other measurement specified in the permit, for each pollutant limited in the permit;

ii. The volume of effluent discharged from each outfall;

iii. Other measurements as appropriate, including pollutants in internal waste streams addressed at N.J.A.C. 7:14A-13.16(a), pollutants in intake water for net limitations addressed at N.J.A.C. 7:14A-13.4(k); parameters for noncontinuous discharges addressed at N.J.A.C. 7:14A-13.20; pollutants subject to notification requirements at N.J.A.C. 7:14A-11.3(a); and pollutants in sewage sludge, or other monitoring as specified in 40 C.F.R. 503 or as determined to be necessary on a case-by-case basis pursuant to section 405(d)(4) of the CWA; and

iv. In accordance with the test procedures under 40 C.F.R. 136 for the analyses of pollutants having approved methods (unless other test procedures have been specified in the permit), or according to a test procedure specified in the permit for pollutants with no approved methods pursuant to N.J.A.C. 7:14A-6.5(a)2. If more than one method exists for analyzing a pollutant and the Department specifies a particular method in the permit, the Department shall provide the basis for selecting the particular method in the fact sheet for the draft permit in accordance with N.J.A.C. 7:14A-15.8;

3. For municipal separate storm sewer systems and for stormwater discharges associated with industrial activity or small construction activity that are not subject to an effluent limitation guideline that establishes monitoring requirements or numeric effluent limitations, monitoring requirements shall be established in accordance with N.J.A.C. 7:14A-24.9;

4. (Reserved)

5. For facilities that may operate at certain times as a means of transportation over water, the permit shall contain a condition that the discharge shall comply with any applicable regulations established for safe transportation, handling, carriage, and storage of pollutants as promulgated by the Secretary of the Department within which the Coast Guard is operating; and/or

vi. A LLAMA shall be obtained for all residual land application sites pursuant to (a)3iii above prior to the initial application of residual to the residual land application site. The conditions of a LLAMA shall be met by the person who applies residual to a residual land application site.

6. Residual which meets the pollutant concentrations in 40 CFR 503.13(b)(1) and the Class B pathogen requirements in 40 CFR 503.32(b), and which meets one of the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (8) or which will meet one of the vector attraction reduction requirements in 40 CFR 503.33(b)(9) or (b)(10) shall be applied only in accordance with the following requirements:

i. The residual shall be monitored, records kept and information reported in accordance with (i), (j) and (k) below;

ii. The residual shall be applied in bulk only and shall not be applied to a lawn or home garden;

iii. The general requirements at (b)1 above, the management practices at (b)2 above and the site restrictions at 40 CFR 503.32(b)(5) apply;

iv. The cumulative pollutant loading rates in 40 CFR 503.13(b)(2) shall not be exceeded and shall be tracked, recorded and reported in accordance with (i), (j) and (k) below;

v. A Conservation Plan developed by the USDA-NRCS and approved by the Soil Conservation District or a SESCO (as applicable) shall be obtained and implemented for all residual land application sites (unless such planning is determined inapplicable to the site by an agency with concurrent jurisdiction); and

vi. A LLAMA shall be obtained for all residual land application sites pursuant to (a)3iii above prior to the initial application of residual to the residual land application site. The conditions of a LLAMA shall be met by the person who applies residual to a residual land application site.

(i) For residual which is to be applied to the land, the frequency of monitoring for the pollutants listed in Table 1, Table 2, Table 3 and Table 4 of 40 CFR 503.13, for the pathogen density requirements in 40 CFR 503.32(a) and 40 CFR 503.32(b)(2) through (b)(4), when applicable, and for the vector attraction reduction requirements in 40 CFR 503.33(b)(1) through (b)(8), when applicable, shall be the frequency specified in Table 1 of 40 CFR 503.16(a) unless otherwise specified below:

1. For sewage sludge, the frequency of monitoring shall be as specified in Table 1 of 40 CFR 503.16(a) or quarterly, whichever is more frequent, except as allowed under (i)2 and 3 below;

2. After any residual has been monitored for two years at the frequency in Table 1 of 40 CFR 503.16(a) or (i)1

above, the permittee may request the Department to reduce the frequency of monitoring as specified in 40 CFR 503.16(a)(2);

3. When a single source of sewage sludge totaling less than 290 metric tons per year (see Table 1 of 40 CFR 503.16(a)) is removed for application to the land no more frequently than three times per year, then monitoring shall be performed at least once prior to each removal;

4. Process parameter monitoring necessary to demonstrate whether any of the pathogen reduction requirements in 40 CFR 503.32(a)(3), (a)(4), (a)(5), (a)(7), (a)(8) and/or 40 CFR 503.32(b)(3) or (b)(4) are met (for example, temperature, time, percent total solids and pH) must be performed each day that the process(es) intended to meet any of the requirements is operated and as often each day as necessary; and

5. Process parameter monitoring necessary to demonstrate whether vector attraction reduction requirements in 40 CFR 503.33(b)(1), (b)(5), (b)(6), (b)(7) and (b)(8) are met (for example, volatile solids, time, temperature, pH and percent total solids) must be performed each day that the process(es) intended to meet any of the requirements is operated and as often each day as necessary.

(j) For residual which is to be applied to the land, recordkeeping shall conform to the requirements of 40 CFR 503.17(a) and the following additional information shall be retained for five years (unless otherwise required by 40 CFR Part 503):

1. Daily records of the sources of residual generated, received and processed as well as the quantity of residual generated, received and processed;

2. If bulk residual does not satisfy the pollutant concentrations in 40 CFR 503.13(b)(3), the Class A pathogen requirements in 40 CFR 503.32(a), or one of the vector attraction reduction options in 40 CFR 503.33(b)(1) through (8), the person who prepares the residual shall keep daily records of the destination of the residual, including, but not limited to, the location, by either street address, lot and block number or latitude and longitude of each site, the quantity of residual delivered and applied to each site, and the whole residual application rate in accordance with (g) above;

3. Where not otherwise specified in 40 CFR 503.17(a), information necessary to demonstrate compliance with the applicable land application program(s) pursuant to (h) above;

4. Records necessary to demonstrate compliance with (i) above; and

5. Records on the quantity and quality of all residual generated and/or received for processing pursuant to the Sludge Quality Assurance Regulations, N.J.A.C. 7:14C. A 12 month moving mean and median shall be kept for all parameters specified under 40 CFR 503.13.

(k) For the land application of residual the following reporting requirements shall apply in lieu of the reporting requirements of 40 CFR 503.18:

1. The frequency of reporting to the Department of the records kept in accordance with (j) above shall be quarterly; and

2. The frequency of reporting may be reduced by the Department after two years of reporting pursuant to (k)1 above, but in no case shall the frequency of reporting be less than once per year.

(l) Out-of-State generators which transport residual into the State of New Jersey to be applied to the land shall, at a minimum, comply with all applicable requirements for the land application of residual pursuant to this subchapter and the following additional notice requirements:

1. In order for the Department to determine the applicable requirements under this subchapter, any person who prepares residual out-of-State for land application in New Jersey shall provide notice to the Department at least 120 days prior to the date that person intends to commence operations for the land application of residual. This notice shall, at a minimum, include:

i. Information on each residual land application site as required to be submitted pursuant to (a)3 and (b)1ix above, as applicable;

ii. Copies of those permits and approvals issued by the permitting authority for the state in which the residual is prepared;

iii. The name, address and phone number of a contact for the permitting authority for the state in which the residual is prepared; and

iv. A listing of any brand names under which a marketable residual product will be distributed.

2. In order for the Department to determine the applicable requirements under this subchapter, any person who currently prepares residual out-of-State which is land applied in New Jersey and plans to continue such activities after May 5, 1997 shall provide notice to the Department by August 3, 1997. This notice shall, at a minimum, include:

i. Information on each residual land application site as required to be submitted pursuant to (a)3 and (b)1ix above, as applicable;

ii. Copies of those permits and approvals issued by the permitting authority for the state in which the residual is prepared;

iii. The name, address and phone number of a contact for the permitting authority for the state in which the residual is prepared; and

iv. A listing of any brand names under which a marketable residual product has been or will be distributed.

3. Upon receipt of the notifications pursuant to (l)1 and 2 above, the Department shall notify the person who prepares residual of the applicable requirements of this subchapter.

4. The Department shall waive some or all of the requirements for record keeping and reporting pursuant to (j) and (k) above if equivalent information is already kept and reported to the permitting authority for the out-of-State generator.

(m) See N.J.A.C. 7:14A-20.2(b) and (c) for situations in which the requirements in this section and in (b) above, respectively, do not apply.

Administrative correction.

See: 29 N.J.R. 3822(a).

Amended N.J.A.C. references.

Amended by R.1999 d.164, effective May 17, 1999.

See: 31 N.J.R. 200(a), 31 N.J.R. 1320(a).

In (a)liii and (j)5, changed N.J.A.C. references.

7:14A-20.8 Surface disposal of sewage sludge

(a) The storage of sewage sludge for more than six months constitutes surface disposal and is prohibited under this subchapter. However, this prohibition does not apply to sewage sludge that remains on the land for longer than six months when the person who prepares the sewage sludge demonstrates that the land on which the sewage sludge remains is not a surface disposal site. The demonstration shall explain why sewage sludge must remain on the land for longer than six months prior to final use or disposal, discuss the approximate time period during which the sewage sludge shall be used or disposed and provide documentation of ultimate management arrangements. Said demonstration shall be in writing, kept on file by the person who prepares sewage sludge and submitted to the Department upon request.

(b) The owner and/or operator of a sewage sludge surface disposal site that has not implemented a Department approved closure plan prior to May 5, 1997 shall submit a surface disposal site closure plan in accordance with the requirements of (d) below by May 5, 1998.

(c) The operating entity for a closed surface disposal site shall comply with the following management practices:

1. The closure of a surface disposal site shall not restrict the flow of a base flood, unless otherwise approved by the Department under the Flood Hazard Area Control rules, N.J.A.C. 7:13;

2. A closed surface disposal site shall not be located in an unstable area;

3. The sewage sludge leachate collection system for a closed surface disposal site that has a liner and sewage sludge leachate collection system shall be operated and maintained for a minimum of five years after the Department approves closure of the surface disposal site. Leachate from a closed surface disposal site that has a liner and sewage sludge leachate collection system shall be collected and shall be disposed in accordance with applicable requirements for a minimum of five years after the Department approves closure of the surface disposal site;

4. When a final cover is placed on a surface disposal site at closure, the concentration of methane gas in air in any structure within the surface disposal site shall not exceed 25 percent of the lower explosive limit for methane gas and the concentration of methane gas in air at the property line of the surface disposal site shall not exceed the lower explosive limit for methane gas for a minimum of five years after the Department approves closure of the surface disposal site;

5. The owner of a surface disposal site shall provide written notification to the subsequent owner of the site that sewage sludge was placed on the land. As part of closure of the surface disposal site, a detailed description of the surface disposal site shall be recorded, along with the deed, with the appropriate county recording office. The description shall include the quantity and quality of sewage sludge disposed, a map indicating the location and depth of sewage sludge on the site, the depth and type of cover material (if applicable), the dates the surface disposal site was in use and all such other information as may be of interest to potential landowners, and shall remain in the legal record of the property in perpetuity;

6. A food crop, a feed crop, or a fiber crop shall not be grown on a closed surface disposal site, unless the owner/operator of the surface disposal site demonstrates to the Department that through management practices public health and the environment will be protected from any adverse effects of pollutants in sewage sludge when crops are grown;

7. Animals shall not be grazed on a closed surface disposal site, unless the owner/operator of the surface disposal site demonstrates to the Department that through management practices public health and the environment will be protected from any adverse effects of pollutants in sewage sludge when animals are grazed;

8. The operating entity must implement a ground water monitoring program in compliance with N.J.A.C. 7:9-6; and

9. Public access to a closed surface disposal site shall be restricted for a minimum of five years after the Department approves closure of the surface disposal site.

(d) In addition to the requirements of N.J.A.C. 7:14A-4 and 20.6, a surface disposal site closure plan shall include the following minimum information:

1. The approximate date discharge to the surface disposal site ceased;

2. A description of the surface disposal site including approximate acreage, and lateral and vertical extent of the surface disposal site;

3. A discussion of the characteristics of the sewage sludge present in the surface disposal site, including:

i. The origin and volume of the sewage sludge;

ii. Dated quality analyses of the sewage sludge on a mg/kg dry weight basis including analyses of all constituents required to be analyzed in accordance with the Sludge Quality Assurance Regulations (SQAR), N.J.A.C. 7:14C. The number of samples required to be analyzed shall be based on a statistical method as described in the Department's Field Sampling Procedures manual, or as otherwise approved by the Department;

iii. Additional quality analyses may be required if deemed necessary by the Department through evaluation of past SQAR reports or other relevant information, such as information on industrial discharges which might contribute constituents not normally evaluated under the SQAR program for domestic treatment works; and

iv. A discussion, or where applicable, analyses pursuant to 40 CFR 503.25, explaining how pathogen requirements or vector attraction reduction requirements were achieved;

4. A description of the proposed method of closure, including plans for the removal and/or in-situ closure of sewage sludge remaining at the surface disposal site, and an implementation schedule for each component of the closure plan;

5. For in-situ closure proposals, the following information:

i. If the surface disposal site has a liner and sewage sludge leachate collection system, a discussion of how the sewage sludge leachate collection system will be operated and maintained for a minimum of five years;

ii. A description of the system used to monitor for methane gas in the air in any structures within the surface disposal site and in the air at the property line of the surface disposal site for a minimum of five years, where applicable;

iii. A discussion of how public access to the surface disposal site will be restricted for a minimum of five years; and

iv. A calculation of the surface run-off across the surface disposal site shall be prepared using a 24-hour, 25-year storm event with estimates of the effect of such run-off on treatment capacity, storage capacity, erosion, flooding, impacts on surface water quality and related details;

6. A soil erosion and sediment control plan certified by the local Soil Conservation District in accordance with the Soil Erosion and Sediment Control Act of 1975, or as amended (N.J.S.A. 4:24-39 et seq.), unless such planning is determined inapplicable by an agency with concurrent jurisdiction; and

7. Any other information required by N.J.A.C. 7:14A-7.20 for residual surface impoundment's or residual infiltration-percolation lagoons.

Amended by R.1999 d.164, effective May 17, 1999.
See: 31 N.J.R. 200(a), 31 N.J.R. 1320(a).
In (d)3ii, changed N.J.A.C. reference.

7:14A-20.9 Fact sheet

(a) In addition to the requirements of N.J.A.C. 7:14A-15.8, any fact sheet prepared under this subchapter shall contain the following:

1. Any calculations or other necessary explanation of the derivation of specific conditions or standards for residual use or disposal, including a citation as to the applicable basis or standard for residual use or disposal;

2. When the draft permit contains limitations set on a case-by-case basis pursuant to N.J.A.C. 7:14A-20.5, an explanation of the reasons why such conditions are appropriate;

3. When appropriate, a sketch or detailed description of the location of the regulated activity described in the application; and

4. For a draft permit that includes a notification plan under N.J.A.C. 7:14A-20.7(a)3, a brief description of the conditions of the permit that address approval of land application sites not identified at the time of permit application.

7:14A-20.10 Residual transfer stations

(a) In addition to the information required by N.J.A.C. 7:14A-4 and 20.6, an applicant for a NJPDES permit for a residual transfer station shall submit application information for residual transfer stations required pursuant to the State-wide Sludge Management Plan and the applicable NJPDES Permit Technical Manual adopted pursuant to N.J.S.A. 13:1D-111.

(b) Transfer of residual transport containers directly from vehicle to vehicle, including truck to train, for shipment to a residual management site or facility authorized by the permitting authority, is not considered a residual transfer station under this subchapter provided the following conditions are met:

1. The contents of each residual transport container shall remain in the residual transport container during transfer between vehicles; and

2. The transfer of residual transport containers shall not result in off-site nuisances, including, but not limited to, dust, odor and noise.

7:14A-20.11 Generic residual quality determinations

(a) It shall be the responsibility of the person who prepares residual to ensure that all residual accepted for processing is compatible with the applicable residual quality limitations.

(b) A person who prepares residual to be applied to the land may accept a residual which does not meet the residual quality limitations of 40 CFR 503.13 provided the residual is to be blended with other residual and the final residual to be applied to the land meets the appropriate pollutant limits under 40 CFR 503.13, subject to the following:

1. Written Department approval pursuant to (c) below is required to accept sewage sludge for blending from domestic treatment works sources not known at the time of permit application where the median or mean pollutant concentration (based on a 12 month moving mean and median) for the source exceeds the residual quality limitations imposed on the person who prepares the residual pursuant to 40 CFR 503.13; and

2. Written Department approval pursuant to (c) below is required to accept residual from industrial treatment works sources not known at the time of permit application regardless of quality.

(c) The following information shall be submitted in order to obtain a generic residual quality determination:

1. For requests to process specific residuals, information shall be provided on the characteristics of the residual and analyses conducted in accordance with N.J.A.C. 7:14A-20.7(a)1 for the previous 12 month period, which shall be analyzed for mean, median and range for each parameter; and

2. For blending requests, a process schematic shall be provided on how complete blending of residuals will be achieved as well as technical documentation on achievement of residual quality limitations pursuant to 40 CFR 503.13 (including mass balance calculations).

SUBCHAPTER 21. REQUIREMENTS FOR INDIRECT USERS

7:14A-21.1 Purpose and scope

(a) This subchapter:

7:14A-24.2 Stormwater discharges for which a NJPDES permit is required under this subchapter; exemptions

(a) A NJPDES permit under this subchapter is required for the following stormwater DSW and DGW:

1. Stormwater DSW for which a permit was issued under Section 402 of the Federal Act (33 U.S.C. § 1342) prior to February 4, 1987 (see N.J.A.C. 7:14A-24.7(a) and (c));

2. Stormwater DSW associated with industrial activity from point or nonpoint sources (see N.J.A.C. 7:14A-24.7(a) and (b));

3. Stormwater DSW associated with small construction activity from point or nonpoint sources (see N.J.A.C. 7:14A-24.7(a));

4. Stormwater DSW and DGW that are from concentrated animal feeding operations and for which a NJPDES permit is required under N.J.A.C. 7:14A-2.13 (see N.J.A.C. 7:14A-4.7 and 4.8);

5. Stormwater DSW from large or medium municipal separate storm sewer systems (see N.J.A.C. 7:14A-25.10);

6. Stormwater DSW and DGW from small municipal separate storm sewer systems (small MS4s) identified under N.J.A.C. 7:14A-25.2(a) or (b) (see N.J.A.C. 7:14A-25.5);

7. Stormwater DSW from point or nonpoint sources (other than activities identified under N.J.A.C. 7:14A-2.5(a)4 or 5) for which either the Department or the USEPA Regional Administrator determines (also see N.J.A.C. 7:14A-24.7(a) and (c), 25.2(a)4 and 25.5) that:

i. Stormwater controls are needed for the point source discharge based on total maximum daily loads (TMDLs) that address the pollutant(s) of concern; or

ii. The point or nonpoint source discharge, or category of discharges within a geographic area, contributes to a violation of a surface water quality standard, or is a significant contributor of pollutants to surface water;

8. Stormwater DSW and DGW from agricultural and silvicultural nonpoint sources regulated under N.J.A.C. 7:14A-2.5(d); and

9. Stormwater DGW otherwise exempt under N.J.A.C. 7:14A-7.4(a)5i or ii, if the Department determines that the discharge is likely to contravene the Groundwater Quality Standards at N.J.A.C. 7:9-6, or may result in violation of the Surface Water Quality Standards at N.J.A.C. 7:9B (see N.J.A.C. 7:14A-4.7, 25.2(a)4 and 25.5).

(b) Whenever it is determined that a NJPDES permit is required under (a)7 or 9 above, or under both (a)3 above and paragraph 2 of the N.J.A.C. 7:14A-1.2 definition of "stormwater discharge associated with small construction

activity," the Department shall notify the operating entity in writing of the reasons for such a determination, and shall include instructions on how to apply for a NJPDES permit. In such a case, and if the operating entity has applied for an individual NJPDES permit, comment regarding the appropriateness of the initial determination may be received during the public comment period under N.J.A.C. 7:14A-15.11 and in any subsequent hearing, unless the reason for that determination was a decision made by USEPA under 40 C.F.R. 122.26(a)(9)(i)(C), (a)(9)(i)(D) or (b)(15)(ii), or under 40 C.F.R. 123.35(b) or (c). The operating entity shall apply for a NJPDES permit in accordance with N.J.A.C. 7:14A-24.4.

(c) The following stormwater discharges are exempt from the requirement to obtain a NJPDES permit from the Department:

1. Stormwater DSW not identified under (a) above;

2. Stormwater DSW from mining operations or oil and gas exploration, production, processing or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including, but not limited to, pipes, conduits, ditches, and channels) used for collecting and conveying precipitation runoff and which are not contaminated by contact with or that has not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations; and

3. Stormwater DGW that are from municipal separate storm sewers, residential areas (including residential streets, parking lots, easements, and open space), commercial areas other than areas of high pollutant loading as described under N.J.A.C. 7:14A-7.4(b)5ii, or animal feeding operations, but that are not through underground injection regulated under N.J.A.C. 7:14A-8 and not identified under (a) above.

(d) The permit requirements for large and medium municipal separate storm sewer systems, and for stormwater discharges associated with industrial activity that discharge through such systems, contained in 40 C.F.R. 122.26(a)(3) and (a)(4) are incorporated into this chapter by reference.

(e) For stormwater discharges associated with industrial activity which discharge through a privately owned and operated separate storm sewer system (private conveyance system), the Department shall either:

1. Issue a single NJPDES permit (or a single authorization under a general NJPDES permit) to the operating entity for the portion of the private conveyance system that discharges to surface water, with each discharger to the private conveyance system a co-permittee to that permit (or to an authorization under a general permit); or

2. Issue individual permits (or authorizations under a general permit) to each discharger of stormwater associat-

ed with industrial activity through the private conveyance system.

3. Where there is more than one operating entity for a single private conveyance system, all operating entities for stormwater discharges associated with industrial activity shall submit applications (or requests for authorization under a general permit).

4. Any permit authorizing more than one operating entity shall identify the effluent limitations, or other permit conditions, if any, that apply to each operating entity.

(f) Combined sewer systems that discharge to waters of the State are point sources that require NJPDES permits applied for in accordance with N.J.A.C. 7:14A-4, and are not subject to the provisions of this subchapter or N.J.A.C. 7:14A-25. Stormwater discharges to combined or sanitary sewer systems are not subject to the provisions of this subchapter or N.J.A.C. 7:14A-25.

(g) Whether a stormwater discharge from a municipal separate storm sewer is or is not subject to regulation under this subchapter or N.J.A.C. 7:14A-25 shall have no bearing on whether the owner or operating entity for the discharge is eligible for funding under title II, title III or title VI of the Federal Act. See 40 C.F.R. Part 35, Subpart I, Appendix A(b) H.2.j.

7:14A-24.3 Petitions

(a) Any operating entity for a municipal separate storm sewer system may petition the Department to require a separate NJPDES permit for any discharge into the municipal separate storm sewer system.

(b) Any person may petition the Department to require a NJPDES permit for a point source DSW which is composed entirely of stormwater which contributes to a violation of a surface water quality standard or is a significant contributor of pollutants to waters of the State.

(c) The owner of or operating entity for a municipal separate storm sewer system may petition the Department to reduce the Census estimates of the population served by such separate system or the population within an urbanized area to account for stormwater discharged to combined sewers as defined by 40 C.F.R. 35.2005(b)(11) that is treated in a publicly owned treatment works. In municipalities in which combined sewers are operated, the Census estimates of population may be reduced proportional to the fraction, based on estimated lengths, of the length of combined sewers over the sum of the length of combined sewers and municipal separate storm sewers where an applicant has submitted the NJPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of any combined sewer overflow discharge point.

(d) Any person may petition the Department for the designation of a large or medium municipal separate storm sewer system as defined by paragraph 4 of the definitions of "large municipal separate storm sewer system" or "medium municipal separate storm sewer system" in N.J.A.C. 7:14A-1.2.

(e) The Department shall make a final determination on any petition received under this section within 90 days after receiving the petition, except as provided in (e)1 below.

1. For petitions under (a) or (b) above to require a NJPDES permit under N.J.A.C. 7:14A-25.2(a) for a stormwater discharge from a small MS4, the Department shall make a final determination on the petition within 180 days after its receipt.

7:14A-24.4 Deadlines to apply for NJPDES permit for stormwater discharges

(a) Any operating entity for a stormwater DSW or DGW identified under (a)1 through 8 below that does not have an effective NJPDES permit authorizing its stormwater discharges shall submit a request for authorization for a general NJPDES permit, or an application for an individual NJPDES permit, in accordance with the following deadlines:

1. Except as provided in (a)1i through vii below, for any "stormwater discharge associated with industrial activity" as defined in N.J.A.C. 7:14A-1.2 that is not authorized by a stormwater general permit, the request for authorization for a stormwater DSW general permit, or an application for an individual stormwater DSW permit made pursuant to N.J.A.C. 7:14A-24.7, shall have been submitted by April 1, 1993.

i. For any stormwater discharge associated with industrial activity from a facility (other than an airport, powerplant, or uncontrolled sanitary landfill) that is owned or operated by a municipality with a population of less than 100,000, the request for authorization or individual permit application shall be submitted by March 3, 2004.

ii. Facilities that are owned or operated by a municipality and that were rejected by the USEPA as members of part 1 group application under 40 C.F.R. 122.26(e)(2) shall have submitted the request for authorization or individual permit application no later than 180 days after the date of receipt of the notice of rejection or April 1, 1993, whichever was later.

iii. If the discharge is from a nonpoint source and is not identified under (a)1iv below, the request for authorization or individual permit application shall have been submitted by November 3, 1997. No NJPDES permit shall have required pollutants in such a discharge to be controlled before November 3, 1997.